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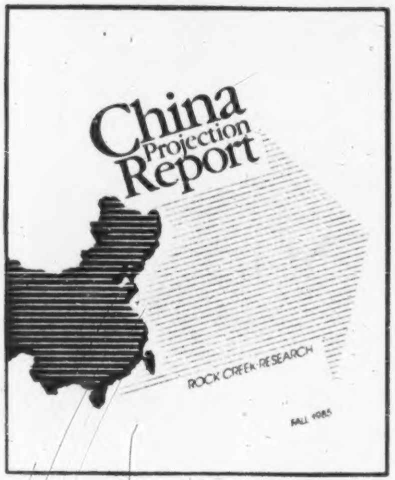
China Projection Report

ROCK CREEK RESEARCH

FALL 1985

China Projection Report


China
Projection
Report
ROCK CREEK RESEARCH
FALL 1985

A comprehensive review and realistic forecast of China's current economic trends through 1990 and beyond.

ROCK CREEK RESEARCH

November 1985

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TABLE OF CONTENTS

Chapter	Page #
1. Introduction	1-1
2. Macroeconomic Overview	2-1
3. Industry	3-1
4. Energy	4-1
5. Investment and Capital Construction	5-1
6. Banking and Finance	6-1
7. Trade and Payments	7-1
8. Agriculture	8-1
9. Commerce and Prices	9-1
10. Transport	10-1
11. Population	11-1

LIST OF TABLES

Table Page #

2-1. Growth of China's Gross Domestic Product, 1981-2000 2-1

2-2. China's Gross Domestic Product, 1980-2000 2-2

2-3. Growth of China's Gross Output, 1981-2005 2-3

2-4. China's Gross Output, 1980-2005 2-3

2-5. Population Growth and Urbanization, 1980-2005 2-4

2-6. Savings, Investment, and Sources of Growth 2-5

2-7. China's Current Account Balance, 1980-2005 2-6

2-8. China's Capital Account Balance, 1980-2005 2-7

2-9. China's Grain Balances, 1980-2005 2-8

2-10. China's Energy Balances, 1980-2005 2-9

3-1. Industrial Gross Output, 1975-85 3-2

3-2. Growth of Quarterly Gross Industrial Output, 1982-85 3-2

3-3. Monthly Growth of Industrial Output, 1984-85 3-3

3-4. Growth in Monthly Energy Output, 1984-85 3-4

3-5. Industrial Output by Form of Ownership, 1980-84 3-5

3-6. Annual Industrial Growth by Industry Type, 1978-84 3-6

3-7. Appendix: Industrial Output by Commodity, 1980-85 3-11

4-1. Primary Energy Output, 1975-85 4-1

4-2. State Capital Construction in Energy, 1978-84 4-2

4-3. Historical Output of Coal by Ownership, 1979-85 4-3

4-4. Energy Supply and Demand in China, 1970-84 4-4

4-5. Economy-Wide Energy Savings, 1979-84 4-4

4-6. International Energy Consumption Comparisons, 1981 4-5

4-7. Electric Power Generation, 1975-85 4-6

4-8. Chinese Oil Exports, 1981-85 4-9

4-9. Energy Output and Growth Targets, 1980-2000 4-11

5-1. Investment and Sources of Growth, 1975-84 5-2

5-2. State Capital Construction Investment by Sector, 1979-84 5-3

5-3. State and Non-State Capital Construction Investment, 1984 5-4

5-4. Sources of Funds Invested in Fixed Assets by State-Owned Units, 1978-84 5-5

5-5. Investment in 20 Key Cities, 1983 5-6

6-1. State Budget Revenue and Expenditure, 1977-85 6-3

6-2. Monthly Industrial Growth, 1985 6-4

6-3. Money Supply Growth, 1977-85 6-4

6-4. Seasonality in Total Loans, 1982 6-5

6-5. Quarterly Money Supply, 1981-85 6-5

7-1. China's Annual Trade Balance, 1975-85 7-1

7-2. China's Balance of Payments, 1980-85 7-2

7-3. Annual Trade Balance by SITC One Digit Trade Categories, 1975-84 7-3

7-4. Quarterly Trade Balance, 1982-85 7-4

7-5. Quarterly SITC One Digit Net Exports, 1982-85 7-6

7-6. Volume of Major Import Commodities by Quarter, 1982-85 7-6

7-7. Monthly Imports of Major Commodities, 1984-85 7-7

7-8. Volume of Major Export Commodities by Quarter, 1981-85 7-8

7-9. Net Exports by Partner Country, 1981-85 7-9

7-10. 1984 Average Quarterly Net Exports and First Quarter 1985 SITC One Digit Net Exports by Trading Partner 7-10

7-11. Selected SITC Two Digit Exports and Imports, 1984 7-12

8-1. Gross Agricultural Growth and Output Value, 1976-84 8-2

8-2. Output of Animal Husbandry Products, 1980-85 8-3

8-3. Output of Pork, Beef, and Mutton by Major World Producers, 1982-83 8-4

9-1. Retail Sales, 1980-85 9-2

9-2. Volume of Farm and Sideline Sales by Purchasing Price, 1978-84 9-3

9-3. Retail and Cost of Living Price Indices, 1970-85 9-4

9-4. Quarterly Growth in Price of Miscellaneous Foods, 1984-85 9-5

10-1. Cargo and Passenger Transport, 1980-84 10-3

10-2. Capacity Growth and Capital Construction in Transportation, 1980-84 10-4

11-1. World Population Comparison, 1983 11-2

11-2. Rural-Urban Migration, 1971-84 11-3

CHAPTER ONE - Introduction

The series of remarkable economic reforms in China since 1978 and the sustained rapid economic growth through 1985 offer the prospects of an increasingly commercial and privately managed economy growing rapidly throughout the remainder of the twentieth century. The trend projections in this report show that China is likely to have a GNP in the year 2000 equivalent to Japan's today. At the same time, sources of information about China and China's economy are growing even faster than China's GNP. Scholars and other researchers who have followed the Chinese economy for many years are suddenly faced with the new task of absorbing and sorting out these many new data. The Rock Creek Research **China Projection Report** offers a thorough review of what is known to date about China's economy and what that information reveals about China's likely future development.

To summarize, China's recent performance, both the reforms and the growth success, point to a major break with China's Maoist past. In fact, it might be more accurate to say that China's Maoist period was a major punctuation mark in a development process bringing China from its periods of civil war, foreign invasion and domestic collapse in the 19th and 20th centuries to a new period of commercial and industrial expansion based on private ownership and orderly international economic relations with the rest of the world.

The major events necessary for explaining recent trends and understanding their projection into the future are all related to China's program of reforms. Rural assets are now essentially private, prices have shifted in favor of agriculture, the entire commune system is gone, and rural marketing institutions and regulations have made farmers into entrepreneurs. Control of industrial enterprises has been decentralized from ministries and local government organs to the managers of enterprises themselves. Industrial prices are shifting rapidly in 1985 to reflect the scarcity of critical raw materials as well as the inflated cost of low quality consumer goods. Bankruptcy is being introduced experimentally. Free markets, both urban and rural, are changing consumer commercial patterns, and the open encouragement of horizontal transactions between enterprises is leaving government organs increasingly divorced from economic management. There are reforms in banking, state finance, international trade, and a host of other economic dimensions. In short, the entire Chinese economic system is becoming largely unrecognizable from what it was ten years ago.

The growth accompanying these reforms -- GNP in 1984-85 is averaging well over 10 percent -- is due both to the reforms themselves and to a combination of fundamental conditions which make continued growth so likely. Perhaps the most fundamental of these factors is China's high quality leadership, especially by third-world standards. China's labor force is literate and healthy. China has long experience with commercial and industrial management, again, especially by poor country standards. The relatively egalitarian distribution of productive assets, especially agricultural land, can form the basis for an economic middle class. Control over individual enterprise management decisions by central government agencies is now much weaker. Population growth has slowed significantly. China's has a very strong natural resource base, not only in energy but also in metals and other raw materials. Large gains can be made from technology transfer, given China's relatively low starting position. China has strategic significance for major Western powers, which ensures their cooperation. Finally, there are many historical precedents in China for a period of sustained commercial expansion after historical epochs of chaos and consolidation. Only a few of these factors would give a poor country good prospects for sustained development. China's endowment with all of them makes it difficult to believe that the current process will be easily stopped or undone.

There are nevertheless numerous analyses of China's recent experience which suggest a reversal. On examination, however, the fears are difficult to justify. Whether it be internal political rebellion, military resentment, objection to "Western" morals, energy and transport bottlenecks, or even the death of Deng Xiaoping, the scenarios for an undoing of China's new organization are not persuasive. As the discussion in Chapter Two explains, fundamental forces seem to be at work, not only forces of fatigue with the past, but forces of pride and hope that China can use its new system to attain goals its old system could not reach. That is why even Deng Xiaoping may no longer be essential. The promise of success is the strongest reason for China's leadership, whoever it is, to consolidate the reform program and manage its evolution.

The Rock Creek Research **China Projection Report** considers what China's economy has become and what it could be, in numerous dimensions, if current trends continue. Its ten substantive chapters and 58 tables review the most recent results for industry, energy, investment, banking, state finance, international trade, balance of payments, agriculture, commerce, transport, and population. Most of these sectors and areas are covered through the first half of 1985, and some through the third quarter. At the same time, a comprehensive computer model of China's economy, broken into 11 essential sectors, provides constant-priced and current-priced projections of China's economic future. The projections are not the mechanical results of a computer running itself. Rather they are the result of painstaking considerations and evaluations, using the computer to maintain consistency among assumptions and technical economic requirements.

One conclusion that can be drawn from the **China Projection Report** is the abundance of reliable and useful data now available for China's economy. Historical data in the report are virtually all from official sources. In addition, numerous missions to China by international agencies and government agencies, as well as the extensive statistical experience of Rock Creek Research staff in China, have verified Chinese methodology in collecting and summarizing its statistics. By poor country standards, China's data are of very high quality and are continuing to improve in both coverage and conceptual basis. The new five year plan for 1986-90 has shifted from the Marxist measure of output, NMP (Net Material Product), to the Western measure, GNP (Gross National Product, which for China is virtually identical to a second preferred measure, GDP, that is, Gross Domestic Product). In short, rather than being a source of doubt about our knowledge of China's development progress, China's data are increasingly a source for understanding and evaluation.

Each of the chapters which follow has similar organization. After an EXECUTIVE SUMMARY, there are sections on TRENDS, POLICY, PROBLEMS, and PROSPECTS. No topic fits neatly into these four categories, but they aid both the analysis of each sector and reference to the report's findings.

CHAPTER TWO - Macroeconomy

EXECUTIVE SUMMARY

TRENDS

* China's double-digit Gross Domestic Product growth in 1984-85 accelerates a longer period of growth relatively balanced between agriculture and industry.
* Slow population growth and rapid decline in rural populations are transforming the Chinese labor force.
* Nearly half of the growth comes from a high rate of investment.
* After a large 1985 trade deficit, China's reserves have fallen and its debt is up.

POLICY

* Fundamental reforms transforming China from a centrally-planned to a private economy are largely responsible for the growth.

PROBLEMS

* The major problems are ones of adjustment, which will delay but not reverse current trends.
* Deng's leadership may no longer be essential.

PROSPECTS

* By the year 2000, China will have a Gross Domestic Product roughly equal to Japan's today.
* Prospects are excellent for continuation of the reform program.

TRENDS

An overview of China's recent macroeconomy reveals a remarkable growth performance, by various measures, with its sources in both strong investment and a host of non-investment sources. All of the growth is related to the vigorous program of reforms implemented since 1978 which have changed the very foundations of the Chinese economy, converting it, by degrees, to a de-facto market

Table 2-1
CHINA'S GROSS DOMESTIC PRODUCT, 1981-2005
(Percent Annual Growth)

	Agriculture	Industry	Other	GDP Total	GDP Per Capita
1981	8.1	2.5	7.7	6.5	5.1
1982	13.1	6.8	-1.2	8.1	6.5
1983	9.5	11.7	4.8	9.0	8.0
1984	12.9	15.8	15.5	14.2	13.1
1985	4.2	19.4	12.8	10.0	8.7
1986	9.3	10.3	10.6	9.9	8.7
1987	7.0	11.5	12.8	9.6	8.3
1988	6.3	10.5	13.0	9.0	7.8
1989	6.0	10.3	11.8	8.6	7.5
1990	5.2	9.7	10.8	7.9	6.7
1995	4.9	7.6	8.2	6.4	5.4
2000	5.7	6.5	6.8	6.2	5.1
2005	7.4	5.9	5.4	6.1	5.2

SOURCES: Official State Statistical Bureau data and RCR calculations.

economy governed by financial incentives rather than physical output targets. China's international economic relations have broadened rapidly, but show China to be critically constrained by foreign exchange shortages. For this reason, exports and imports of such basic commodities as grain and energy follow patterns which are different from what one might expect from conditions of domestic scarcity. The tables and text which follow serve as an introduction to the most basic macroeconomic trends, both through 1985 and as they could be extended into the future. For much more detailed discussions of these trends, see the chapters on individual sections which follow.

Table 2-1, above, shows that China's GDP (Gross Domestic Product) has accelerated strongly from 1980 to 1984 in a remarkable performance of sustained growth. As China officially measures its output, there are various sources of exaggeration and some important omissions. By converting official data to the Western GDP basis, a much more accurate picture is obtained. Even with these corrections, which involve the addition of service sector output and correcting for China's unrealistically high industrial pricing, we know enough about 1985 to say that it will be the second consecutive year of double-digit real growth (corrected for inflation), following two previous years of 8 and 9 percent growth respectively.

What is also significant is the balanced pattern of this growth, and in particular the strong and sustained role played by agriculture. Only the output record for "other," which includes service industries as well as construction and transport, is shown by preliminary official data to be weak in the early 1980s. Future revisions of those data may clarify the record. However, since the end of the 1980-82 period of "Readjustment," and in particular in 1984, growth was very high in all sectors of the economy.

Table 2-2
CHINA'S GROSS DOMESTIC PRODUCT, 1980-2005
(Billion Constant 1980 U.S. Dollars*)

	Agriculture	Industry	Other	GDP Total	GDP Per Capita
1980	119.8	63.5	56.1	239.3	242
1985	188.4	107.2	81.4	377.0	360
1990	261.3	176.4	142.3	580.0	525
1995	332.2	254.5	210.9	797.6	683
2000	438.8	349.1	292.7	1,080.7	876
2005	624.7	464.8	380.5	1,470.0	1,128

* NOTE: Except for per capita GDP, which is in U.S. dollars.
SOURCES: Official State Statistical Bureau data and RCR calculations.

Overall, GDP growth in 1985 is roughly 10 percent over 1984, with particularly rapid growth in industry. Following 1984's very strong record, 1985's results are mixed largely because of weather conditions, in particular typhoon flooding and widespread drought. Nevertheless, agricultural output will still be high by international standards for rural growth. Industrial output in 1985 is extremely high. Growth of gross industrial output through September was 22 percent over that in the first three quarters of 1984, and although the monthly output pace slackened in August and September, growth for the year will still be close to 20 percent over 1984.

The pattern of these recent macroeconomic growth trends implies that the same trends could, to some degree, continue into the future. The most important patterns related to the recent growth are accelerating investment and the implementation of reforms, which by 1985 have been instituted firmly enough to make their reversal difficult. If these trends continue, even modified, they will show China's own projections to be conservative. The implications of China's current economic performance are presented in Tables 2-1 and 2-2, above, and Tables 2-3 and 2-4, below.

Table 2-3
CHINA'S GROSS OUTPUT, 1981-2005
(Percent Annual Growth)

	Agriculture	Heavy Industry	Light Industry	Total Industry	Gross Product Total
1981	5.9	-4.7	14.1	4.5	4.4
1982	11.3	9.8	5.7	7.8	9.0
1983	7.7	12.4	8.7	11.2	10.0
1984	11.7	14.2	13.9	16.3	13.8
1985	6.0	15.3	19.8	19.6	16.5
1986	9.0	8.8	9.6	11.1	11.4
1987	7.2	9.8	12.9	12.8	12.3
1988	6.4	9.4	12.3	11.9	11.5
1989	6.2	8.8	12.4	11.9	11.2
1990	6.0	7.7	12.0	11.4	10.7
1995	5.6	6.4	9.9	9.4	9.0
2000	6.4	5.3	8.2	8.3	8.1
2005	8.0	4.7	6.9	7.6	7.5

* NOTE: Total industry includes brigade industry; Gross product total includes gross output of tertiary sectors, productive and non-productive.
SOURCES: Official State Statistical Bureau data and Rock Creek Research estimates.

Table 2-4
CHINA'S GROSS OUTPUT, 1980-2005
(Billion Constant 1980 Yuan)

	Agriculture	Heavy Industry	Light Industry	Total Industry	Gross Output Total
1980	198	264	233	522	936
1985	297	409	417	910	1,555
1990	415	626	730	1,590	2,671
1995	546	852	1,171	2,495	4,113
2000	744	1,104	1,742	3,715	6,074
2005	1,090	1,391	2,434	5,357	8,722

* NOTE: Total industry includes brigade industry; Gross product total includes gross output of tertiary sectors, productive and non-productive.
SOURCES: Official State Statistical Bureau data and Rock Creek Research estimates.

In comparing current trends with China's own targets, it is immediately apparent that growth will have to slow dramatically in the near future if output is to be limited to the stated goals. The most well-known target is the oft-repeated one of quadrupling the gross output value of agriculture and industry between 1980 and the year 2000. As Table 2-4, above, makes clear, the relatively modest projections of current trends presented will quadruple the gross value of agriculture and industry by 1995, not 2000. Projections of per-capita GDP in constant dollars (see column 5 in Table 2-2) also show that China will easily accomplish the goal of 800 dollar per-capita output. Recent statements by agricultural officials that agriculture alone can quadruple its output over the same 20-year period, however, are probably unrealistic, although farm GDP could grow faster than the traditional Chinese gross output measure because of the increasingly labor-intensive nature of China's new agriculture.

Table 2-5
POPULATION GROWTH AND URBANIZATION

	Population (Million)			Population Growth (Percent)			Share of Total (Percent)	
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1980	796	191	987	.66	3.49	1.19	80.6	19.4
1981	799	202	1,001	.42	5.39	1.38	79.8	20.2
1982	804	212	1,015	.61	4.87	1.47	79.2	20.8
1983	784	241	1,025	-2.51	14.05	.94	76.5	23.5
1984	705	330	1,035	-10.08	36.81	.96	68.1	31.9
1985	636	411	1,047	-9.80	24.49	1.14	60.7	39.3
1986	592	466	1,058	-6.80	13.38	1.12	56.0	44.0
1987	570	500	1,070	-3.80	7.36	1.11	53.3	46.7
1988	554	528	1,082	-2.80	5.56	1.11	51.2	48.8
1989	544	550	1,094	-1.80	4.15	1.10	49.7	50.3
1990	540	566	1,106	-.80	2.98	1.10	48.8	51.2
1995	516	652	1,168	-.90	2.90	1.10	44.2	53.8
2000	521	713	1,234	.20	1.80	1.10	42.2	57.8
2005	536	767	1,303	.60	1.40	1.10	41.2	58.8

SOURCES: Official State Statistical Bureau data and Rock Creek Research estimates.

For China's rural and urban economies alike, population growth and movements are having and will continue to have a profound influence. Table 2-5, above, shows China's two most significant demographic trends: the success in slowing the overall population growth rate and the extraordinary pace at which the rural population is urbanizing. Beginning in the 1970s, China's crude population growth rate began to slow significantly, and by the early 1980s it was approaching 1 percent a year. Although there is evidence of some relaxation of the one-child policy for certain circumstances, effective population control by third-world standards is very likely.

Much more dramatic than the gradual slowing of overall population growth is the explosion in China's urban populations, as rural peasants move to towns, and as areas once considered rural acquire the status of urban areas. By whichever method, the increase in city-dwellers must be having a major influence on work and consumption patterns. The trends in 1983-84, for which there are official data, show the rural population falling by as much as 10 percent a year. Trends such as this are not likely to continue, although the very high growth in industrial output in 1985 may signal, temporarily, an even stronger shift. The trend projections in Table 2-5, above, show that if the urban movement moderates slightly and then slows significantly by the late 1980s, China's urban population will be 50 percent of the total by 1988 or 1989.

Although this rapidly increasing urban population and the increasingly sophisticated labor force it may be creating are important explanations for China's overall growth record, the most significant source of China's growth is the combination of strong investment and improved incentives under the general reform program. The role of investment is presented in Table 2-6, below, which combines an analysis of China's high savings and capital accumulation rate with investment's productivity to determine how much growth is due to investment and how much to other factors, such as labor and more efficient management.

Table 2-6
SAVINGS, INVESTMENT, AND SOURCES OF GROWTH **

	NMP* Savings	GDP* Savings	Capital Productivity	Productivity Growth	Real NMP* Growth	from Investment	from Other Sources
1980	31.6	28.1	.227	--	--	--	--
1981	28.5	25.3	.222	-2.2	4.9	7.2	-2.3
1982	29.0	25.6	.227	2.3	8.2	6.3	1.9
1983	29.7	26.2	.232	2.2	9.8	6.6	3.2
1984	31.2	27.4	.243	4.7	13.9	6.9	7.0
1985	34.5	30.2	.254	4.4	12.4	7.6	4.8
1986	34.0	29.7	.256	0.7	9.5	8.8	.8
1987	33.1	28.8	.258	0.8	9.6	8.7	.9
1988	32.2	27.9	.259	0.3	8.9	8.5	.4
1989	31.3	27.1	.259	0.3	8.7	8.3	.3
1990	29.4	25.3	.259	-0.2	7.9	8.1	-.2
1995	29.0	24.6	.243	-1.3	6.4	7.8	-1.4
2000	29.0	24.1	.227	-1.3	5.9	7.3	-1.4
2005	29.0	23.6	.216	-0.1	5.8	6.9	-1.1

* NOTE: NMP stands for Net Material Product, the Chinese/Marxist equivalent to Gross Domestic Product (GDP), the usual measure of value-added in the West.
** UNITS: All growth and savings rates are percent. Capital productivity is output per value of capital.
SOURCES: Official data and Rock Creek Research estimates.

China's rate of saving and capital accumulation, the share of its output it does not consume but rather dedicates to plant and equipment for future output, is relatively high by world standards, especially poor-country standards. Because the official Chinese savings rate data are based on NMP (Net Material Product), which is smaller than GDP, the usual output measure in the West, Table 2-6 gives China's saving rate by both measurements. In each case, China's savings rate is close to or greater than 30 percent of output. As the quality of investment goods improves, this rate of accumulating capital should continue to support the output growth trend.

As Table 2-6 also shows, however, not all of China's growth is explained by increases in capital stock, given estimates of capital's productivity. Other sources of growth include improved labor skills and increased labor supplies for labor-intensive technologies, natural improvements in efficiency of existing capital, better management at the enterprise and at the national level, and, certainly, weather for agriculture. All of these factors are important for understanding the current trends in China's output. The historical data show that other sources of growth have at times accounted for as much as half of China's output increase.

The significance of these trends, both for investment and non-investment sources of growth, is that they may continue into the latter 1980s and the 1990s. Because the non-investment sources of growth may be only temporary and related to the implementation of the various reform movements, the trend projections in Table 2-6 have not given them much importance after 1985. At the same time, the rate of saving and capital accumulation is assumed to decline gradually after its high level in 1985 (based on data reported for June and the third quarter). As a result, the trend projections presented in all the output tables in this chapter are based on rather conservative assumptions about continuation of trends behind China's recent growth surges. In the 1990s, non-investment sources of growth are posited to be significantly negative, as China's output in all sectors becomes increasingly capital intensive. It is because of these restrained assumptions behind this report's projections of Chinese output that China's official targets for 1990 and 2000 appear conservative.

Although a great deal of attention has been paid to China's domestic economy, the rapid growth in China's international economic transactions is equally as dramatic. Tables 2-7 and 2-8, below, review the recent record in China's trade, current account, and capital account balances.

Table 2-7
CHINA'S CURRENT ACCOUNT BALANCE, 1980-2005
(Billion Current U.S. Dollars)

	Exports	Imports	Trade Balance	Invisibles Net	Current Account Balance
1980	18.1	17.8	.3	.3	.6
1981	22.0	20.0	2.0	.4	2.4
1982	21.1	17.5	3.6	1.4	5.0
1983	20.7	20.1	.6	2.3	2.9
1984	23.9	23.9	.1	2.0	2.1
1985	22.8	33.9	-11.2	1.9	-9.3
1986	21.9	24.1	-2.2	1.8	-.4
1987	24.2	24.4	-.1	2.0	1.9
1988	26.6	27.8	-1.2	2.2	1.0
1989	29.7	31.2	-1.5	2.5	1.0
1990	33.7	35.3	-1.6	2.8	1.2
1995	50.1	52.3	-2.2	4.2	2.0
2000	77.2	80.9	-3.7	6.5	2.8
2005	123.8	127.9	-4.1	10.4	6.3

SOURCES: China Customs Administration, Bank of China, Ministry of Foreign Trade, and Rock Creek Research estimates.

In brief, China's trade and payments have seen strong earnings in the early 1980s, after the deficits and foreign exchange difficulties associated with the "mini-Great Leap" in the late 1970s and the 1979 fighting with Vietnam. By 1984, as seen in Table 2-7, above, China had accumulated roughly 14 billion dollars of foreign exchange reserves. However, in association with the investment boom in 1984-85, the large late-1984 increases in the money supply, the decentralization of both banks and foreign trade enterprises, imports in late 1984 and early 1985 expanded rapidly. Imports in the first eight months of 1985 were up 50 percent over the same period in 1984. At the same time, exports stagnated from late 1984 through 1985's third quarter; the resulting trade and current account deficit is seen clearly in Table 2-7, above. Because of rather strong efforts in mid- and late-1985 to control imports, including a gradual devaluation of the yuan begun in September, imports appear likely to fall significantly in late 1985 and in 1986. The result will be a much smaller deficit and an eventual current account surplus.

Table 2-8
CHINA'S CAPITAL ACCOUNT BALANCE, 1980-2005
(Billion Current Dollars)

	Lending (Net)	Increase In Reserves	Capital Account Balance	Errors and Omits	Foreign Exchange Reserves	Net Foreign Debt
1980	-1.8	.1	-1.7	2.1	1.9	.9
1981	.7	2.5	3.2	-1.2	4.4	1.6
1982	-.3	6.3	6.0	-.9	10.7	1.3
1983	.2	3.6	3.9	-1.0	14.3	1.5
1984	1.0	.1	1.1	1.0	14.4	2.5
1985	-4.5	-4.7	-9.3	.0	9.7	7.0
1986	2.2	-2.6	-.4	.0	9.8	4.8
1987	1.6	.3	1.9	.0	7.4	3.2
1988	.5	.6	1.0	.0	7.9	2.7
1989	.5	.5	1.0	.0	8.4	2.2
1990	.6	.6	1.2	.0	9.0	1.6
1995	-2.4	4.4	2.0	.0	13.4	4.0
2000	-4.5	7.3	2.8	.0	20.7	8.5
2005	-5.7	12.0	6.3	.0	32.8	14.2

SOURCES: China Customs Administration, Bank of China, Ministry of Foreign Trade, and Rock Creek Research estimates.

As a result of the large 1985 trade and current account deficits, China both drew down its foreign exchange reserves in 1985 and began to borrow in significant amounts. Because China has published foreign exchange data for the first half of 1985, the level of borrowing (negative net lending) can be estimated. Table 2-8, above, shows these trends and the associated falls in China's reserve position. Foreign reserves will probably have fallen below 10 billion dollars by the end of 1985, and China's very modest debt will have grown by nearly 5 billion dollars.

The continuation of such trends, however, is unlikely, given China's difficulty in earning foreign exchange and her generally conservative fiscal policy posture, both domestically and internationally. The trends shown above in Tables 2-7 and 2-8 for the late 1980s and the 1990s are just one of many possible strategies China could pursue. The significant element in this conservative trade policy is its impact on the speed of technology transfer. The non-investment sources of growth in Table 2-6, above, are so low in large part because of this assumption of reduced imports rather than large-scale borrowing. If China decided that it could productively absorb larger amounts of foreign technology and was willing to borrow to acquire it, the economy's overall growth rate into the next decade would be higher than it has been projected in this chapter. In addition, certain bottlenecks associated with China's resource endowment, such as energy and land for grain, could be eased. Trends in China's grain and energy balances are presented in Tables 2-9 and 2-10, below.

Table 2-9
CHINA'S GRAIN BALANCES
(Million Tons)

	Production	Intermediate Use	Final Consumption	Total Consumption	Exports	Imports
1980	320.6	113.7	229.5	343.2	1.0	23.6
1981	325.0	115.3	235.0	350.3	.8	26.0
1982	354.5	123.1	262.2	385.3	.8	31.6
1983	387.3	130.4	276.0	406.4	1.3	20.4
1984	407.3	135.3	283.4	418.7	3.2	14.7
1985	389.4	106.3	292.7	399.1	4.5	14.2
1986	414.0	165.6	262.3	427.9	1.5	15.4
1987	417.9	145.6	285.8	431.4	1.8	15.3
1988	419.8	144.0	290.9	434.9	1.9	17.0
1989	421.7	131.4	306.8	438.3	1.9	18.5
1990	423.6	130.7	311.2	442.0	2.0	20.4
1995	444.7	153.3	320.4	473.7	1.9	30.9
2000	435.3	154.8	326.2	481.0	1.8	47.6
2005	422.2	162.5	331.1	493.6	1.7	73.1

SOURCES: China Customs Administration, State Statistical Bureau, and Rock Creek Research estimates.

The grain balances presented above in Table 2-9 reflect a difficult problem in China's economic policy-making. Demand for grain could be expected to increase significantly in the coming decades, as more raw foods are processed, and as more grains are needed for the ambitious meat and dairy industry plans. However, China has very limited arable land relative to its population, and much of that land is near urban areas, making cultivation of higher value-yielding crops, such as vegetables and fruits, much more profitable. Lower value-added staples might well be imported, as they are in Japan and to some extent in South Korea. For China, however, this represents a use of foreign exchange with only indirect benefits to technology transfer and industrial modernization. As a result, China is likely to constrain its imports of grain, while the shifting of planted land to other crops continues. These shifts have been taken into account for the trends shown in Table 2-9, above. Both production and consumption growth are modest, and although China maintains an indefinite grain deficit, it is not extremely large relative to the overall trade picture.

Just as China imports less grain than she might otherwise to conserve foreign exchange, she exports more energy than she otherwise would to earn foreign exchange. Although energy is in critically short supply domestically, the need for foreign exchange earnings will continue to force China to export, particularly in a period of falling world energy prices. Table 2-10, below, gives likely trends in China's energy production, consumption, and trade.

Table 2-10
CHINA'S ENERGY BALANCES
(Million Metric Tons of Standard Coal Equivalent)

	Production	Intermediate Use	Final Consumption	Total Consumption	Exports	Imports
1980	620.3	364.1	239.3	603.4	17.6	.7
1981	615.8	387.8	211.3	599.2	16.8	.2
1982	642.1	405.7	219.4	625.1	17.4	.4
1983	687.9	404.1	267.5	671.6	16.6	.3
1984	751.5	423.2	306.3	729.5	22.3	.4
1985	830.4	428.9	374.6	803.5	27.5	.7
1986	884.4	474.6	376.6	851.1	33.8	.6
1987	946.3	513.8	393.7	907.5	39.5	.8
1988	1,004.9	544.7	416.7	961.5	44.6	1.1
1989	1,063.2	588.8	426.9	1,015.8	48.9	1.5
1990	1,119.6	634.9	433.7	1,068.6	52.9	2.0
1995	1,380.4	778.3	543.6	1,321.9	60.5	2.0
2000	1,653.7	980.7	605.3	1,586.0	69.8	2.1
2005	1,925.0	1,216.9	628.5	1,845.4	81.8	2.2

SOURCES: China Customs Administration, State Statistical Bureau, and Rock Creek Research estimates.

A major component of the energy balances shown above is the strong growth in energy output anticipated through the year 2000. The Chinese targets of doubling energy output between 1980 and that year are almost certainly conservative. For a detailed discussion of this question, see Chapter 4 on Energy. A second major component, although an indirect one, in China's energy balances is energy conservation in industry. China's energy use is arguably the worst in the world for a major economy, and the potential for conservation has already shown itself in the 1980s, as overall output has far outpaced increases in energy consumption. These trends are all important for understanding the consumption patterns above, relative to the industrial output trends projected in the chapter's earlier tables. Furthermore, the balances above are projected without anticipating finds of offshore oil in China on the scale which was once anticipated. Should that occur, China's energy position in the world would naturally change in a dramatic way.

POLICY

For the macroeconomy, the major policy position is one of reforms. One could almost say, reforms and reforms and reforms and reforms. But from all the major shifts underway for the past seven years in China, a major theme emerges: private control in the microeconomy. What are essentially significant property rights are being transferred to farmers, other individuals and to enterprise managers and groups of enterprise managers. Control is passing or has already passed from collective bodies meeting physical output targets and run by party cadres to decentralized units run for profit by professional managers. At the same time, the central government is seeking indirect methods such as control of the money supply, exchange rate, other prices, as well as the level of state spending to influence the direction of the macroeconomy.

The shift to private control and profit incentives has forced the issue of price reform, and without waiting for official changes, many prices are adjusting themselves as buyers and sellers refuse to pay or accept unreasonable rates. This adjustment of prices, which has accelerated in 1985, is in turn critical for the success of other reforms, in particular, investment reforms that give autonomy to enterprises to invest with bank loans. With pre-reform prices misinforming enterprises about the profitability of projects, price reforms are essential if individual initiatives are to result in sound decisions.

A more detailed account of individual reforms is given in the Policy sections of subsequent chapters. For reference, a partial list of major management and institutional reforms in agriculture and industry follows:

Agriculture

- The 1979 introduction of the household contract responsibility system giving control of land and herds to individuals; by 1983, over 90 percent of such assets had been transferred.
- By 1984 the contract periods had been lengthened to 15 years or longer, and contracts were made inheritable; few believed by then the lands would ever be given back to the state.
- In 1984 most communes were disbanded and rural governing authority was returned to towns and counties. By 1985 all communes were gone.
- 1985's contract procurement system replaced the 30-year-old system of compulsory deliveries of farm products to the state. Farmers were free to refuse to sign contracts for unattractive cropping patterns. A major step in the commercialization and monetarization of the rural economy.
- In June, 1985, ownership rights for herdsmen over specific tracts of expansive rangeland were promulgated, granting private control even over the semi-arid range.

Industry

- As early as 1979 the traditional Soviet emphasis on heavy industry was formally abandoned in favor of light industry, following a more East Asian pattern.
- In 1983, pilot enterprises were allowed to experiment with operating on a for-profit basis.
- By early 1984, the "Contract Economic Responsibility System" was adopted everywhere for state-owned service enterprises, making them responsible for their own profits and losses.
- In May 1984, the State Council promulgated regulations further expanding the decision-making power of state-run enterprises.
- In September, 1984, more than half of plan products were taken out of the plan, leaving decisions on levels of production to individual enterprises.
- The October, 1984, "Urban Reform Program" document was delivered, with far-reaching policies for severing relationships between enterprises and their ministries or local government supervisors. The program stipulated a wide range of managerial freedoms and price reform measures, including the right to hire and fire labor, make investment decisions, and set prices.
- In May, 1985, provinces and local governments throughout China began intensifying efforts to separate enterprises from their former

owners/supervisors, because of lessons learned in the winter.
- In the spring of 1985, experiments were begun with bankruptcy laws and procedures in selected Northeast provinces.
- July, 1985, labor and wage regulations tied pay to performance on the job.
- Setember, 1985, new State regulations allowed joint ventures for state enterprises and cooperatives that cut across different trades, regions, and cities, and different forms of enterprise ownership.

PROBLEMS

There seems to be no problem serious enough to stop the reform program, short of war with Taiwan. Major problems for China's macroeconomy are ones of adjustment in the current critical period of reform implementation. In particular, as profit incentives spread, but price adjustments lag, wide swings in prices, wages and standards of living could destabilize and delay the overall reform program, although it is unlikely that they could reverse it. A second problem is the abuse of power by local officials. Without any grasssroots democratic institutions, the honesty of local officials depends on the vigilance and willingness to discipline on the part of central authorities.

There are a host of problems usually cited by commentors on China's new reform program as serious, which in fact, although possible causes of slowdowns, do not seem to be serious enough to stop China from continuing in its new direction. A brief treatment of some of them follows.

Disgruntled party cadre opposition to the reforms and similar feelings on the part of the military are sometimes thought to represent a major lurking threat to the whole program. In fact, cadre and military personnel are entering the private sector in large numbers. Because of the Cultural Revolution, party prestige has had difficulty recovering its former strength, and the success of the current program seems to be its best chance. Similarly, the military knows that if it is going to avoid being a fourth-ranked power for the indefinite future, its capabilities must be based on a modern domestic industrial structure, something the military realizes the old system could never give it.

Corruption and pornographic influences from the West and Japan are often seen as building a groundswell of resentment for the new open-door policies and what they are doing to Chinese society. However, most Chinese know very well that corruption and various forms of sexual expression have a long tradition in China, even in Maoist China, and although moralizing by elderly cadres may serve some purposes in their political maneuverings, it is unlikely that these arguments persuade many people that the "spiritual pollution" comes from without.

There are some problems, however, which represent genuine difficulties for the program of reform. Resistance to the transfer of authority to enterprises by ministries is natural, but the destabilizing effects of rigid prices in the face of partial managerial independence could strengthen the hand of conservative ministerial and local officials arguing that they need to keep control to avoid chaos and "anarchy." In the long run, with the national policy so firmly stated, this kind of resistance to decentralization is not likely to succeed, but it could significantly delay the process.

Similarly, often cited economic problems will slow growth and cause delays, but not cause any major reversal in the basic direction of the Post-Mao program.

Even though energy bottlenecks cause significant portions of industry to operate below capacity, this shortage has also acted as an incentive to find more energy efficient methods, and given the results in energy conservation since 1980, it is apparent that shortages are having some of the same effect as higher prices; scarcity is causing conservation. For transportation, the problem is extremely serious (see Chapter 10 on Transportation), but again, with profit incentives in place, alternative solutions are beginning to appear. Foremost is highway transport as provinces and even counties are finding that local commerce can expand significantly. On a national scale, problems of transporting coal from distant mines in Shanxi are causing major investments in mines closer to the eastern industrial centers, and local mines are responsible for more than half of coal's recent impressive output growth. (See the chapter on Energy.)

The slowdown in the world economy and China's difficulty in finding markets for her light manufactures will also slow the progress of China's industrial program, limiting foreign exchange available for technology purchases. There is a long list of such problems facing China's macroeconomy, but they are similar to problems facing many poor economies trying to modernize. China's advantage lies in the new system of reforms and incentives.

The question of leadership and of Deng Xiaoping's eventual passing is important, but recedes with every year. Furthermore, given the tremendous fatigue in China following the Cultural Revolution, it is possible that were Deng Xiaoping not there, some other elderly leader would be found to symbolize what is in a fact a movement of youth in the country to move China in new directions.

PROSPECTS

Given China's recent trends of strong growth and the remarkable system of reforms supporting the economic expansion, the growth trend projections in the first section of this chapter represent possibly even conservative estimates of China's future growth. If China does grow in something like the pattern outlined, she will have a GDP in 2000 roughly the size of Japan's today. On a per capita basis, of course, China's level will be roughly one-tenth that of Japan's now, and because of China' size, international trade will not be as important a factor in her overall economy. Nevertheless, China's economy will be large enough that it will affect the economies of virtually all other countries and territories in the region, if not the world.

Given the relatively slow growth in much of the world's economy, a sustained economic expansion by China, fueled in part by an emerging peasant middle class of tiller-owners, could support economic activity in many neighboring economies. China will have "rough edges," producing too much of this, and not enough of that. Natural opportunities for trade and investment will grow as China's economy grows. Where, ten years ago there was virtually nothing in terms of international trade and economic opportunity, in fifteen there will be a major world economy. There is resistance to this kind of thinking on the part of many observers of China's current course. It may come more slowly than the trend projections in this chapter have supposed, but on the other hand, it could also come more quickly. The prospects are excellent that China's changes are permanent.

CHAPTER THREE - Industry

EXECUTIVE SUMMARY

TRENDS

- Industrial output in 1985 is up roughly 20 percent, after 1984 growth of over 16 percent. This growth seems broad-based and sustained.
- On-going reforms in industrial management, transferring power to enterprise managers, are the primary reason for such high growth.
- Growth is especially strong in collective and village enterprises, due to ownership changes and reforms.

POLICY

- Urban reforms, introduced nationwide in October 1984, have been extended to a second phase to correct for the interception of management power by local governments.
- Credit and other controls are trying to slow the growth.
- 1985 price reforms in both industry and agriculture are correcting for low prices of some scarce goods and raw materials.

PROBLEMS

- Low quality and counterfeit goods are increasingly reported

PROSPECTS

- Even as industrial growth relaxes in 1985's fourth quarter, such growth in the middle or high teens would transform industry by 1995, with output as much as four times what it is today.

TRENDS

China's industrial sector has undergone well-documented growth in the 1980's. The recent growth record began in the early 1980s, with 1984 growth over 16 percent and 1985 growth of 22 percent in the first three quarters. There are numerous causes for this impressive growth, including rapid increases in investment, money supply, agricultural output, and a relaxation, for the time being, of energy constraints which seemed so critical in 1980-81. However, the most important reason for such high industrial growth is the on-going series of reforms in industrial management and market relationships, including a pronounced shift in growth and ownership from state to collective enterprises.

The annual growth rates for Chinese industry since 1981 show that double-digit growth is not unusual. If anything, single-digit industrial growth is the exception, as is evident from the historical pattern given in Table 3-1 below. In particular, since 1975, overall industrial growth has hovered around 10 percent, except for only two periods of particular crises, Mao's death in 1976 and 1981's state fiscal crisis from the fighting with Vietnam, high growth has been the norm for China. The double-digit industrial growth of 1984-85 seems matched in the 1977-78 period, but growth in the former period, without management and market reforms, could not be sustained.

The impressive 22 percent gross industrial output record through August 1985 is the one of the most significant recent developments in China's domestic economy. The same management reforms spurring this industrial growth are also responsible for shifting that growth towards more labor-intensive light industries and for introducing the possibility of business failures, joint ventures and shared military technology.

Table 3-1
INDUSTRIAL GROSS OUTPUT, 1975-85
(constant 1980 prices)

Year	Heavy Industry	Light Industry	Rural Industry	Total With Rural	Total Without Rural
(Percent Growth)					
1975	16.83	12.98	32.80	15.53	15.13
1976	.55	2.37	44.79	2.46	1.34
1977	14.27	14.31	23.24	14.61	14.29
1978	15.59	10.80	15.40	13.57	13.49
1979	7.67	9.64	16.40	8.82	8.51
1980	1.46	18.38	21.31	9.29	8.76
1981	-4.72	14.12	12.20	4.51	4.13
1982	9.82	5.71	9.68	7.81	7.71
1983	12.38	8.70	23.47	11.20	10.53
1984	14.23	13.86	53.24	16.30	14.05
1985 *	19.80	24.40	n/a	n/a	22.10
(Billion 1980 Yuan)					
1984	354.6	348.4	57.7	760.6	703.0

* NOTE: 1985 data are for the first 9 months over the same period in 1984.
SOURCES: Official Chinese statistics and RCR calculations. (J5cbc04.d5j)

Looking at annual trends, the 1985 results appear to be a sudden first-quarter jump in output, but, as the quarterly growth rates in Table 3-2 indicate, industrial growth began gradually accelerating from a low in late 1982. Monthly data show that the climb to 23 percent growth accelerated more clearly

Table 3-2
GROWTH OF QUARTERLY GROSS OUTPUT 1982-1985

	Year/Qtr		Heavy Industry	Light Industry	Total Industry
Growth Rates	1982	I	14.1	14.5	11.4
(percent)		II	10.5	7.3	8.7
		III	10.3	1.2	5.7
		IV	5.0	1.4	5.6
	1983	I	6.1	2.7	7.0
		II	12.6	8.0	10.5
		III	13.6	12.0	12.6
		IV	16.8	11.8	11.7
	1984	I	12.1	11.7	11.9
		II	11.5	10.8	11.1
		III	15.3	12.9	14.3
		IV	14.3	16.1	15.1
	1985	I	20.4	25.6	23.0
		II	21.9	25.8	23.8
		III	17.1	21.8	19.5
(Bil 1980 Yuan)					
	1985	II	110.48	107.68	218.16

SOURCES: China's State Statistical Bureau official data. (J5CE07.D5H) beginning in July of 1984 and rose to 17.8 percent by December. (See Table 3-3, below.) Thus the 1985 surge is a somewhat more gradual take-off from an already high plateau of late 1983 and 1984. Within that pattern of gradual acceleration, January's 24.5 percent growth did indeed mark a significant acceleration. This more gradual acceleration may imply more sustained growth.

Right from the start in early 1985, reports of growth greater than 20 percent generated widespread skepticism. None of the reasons offered, however, can explain away the nine-month industrial performance. The reported growth was not in current prices and hence was not exaggerated by inflation. The 23 percent growth of the first half of 1985 can not be accounted for by definitional changes to include rural industry. In 1984, the difference between industrial growth with and without rural industry was only 2 percentage points. Ownership shifts have not been on a large enough scale to significantly increase double-counting in gross output.

Investigation of inventory change does not confirm the build-up of vast stocks of worthless "output." Reports from a range of industries suggest that the growth boom is demand-driven, and the main complaint is of shortages rather than excess stockpiles. There are various comments in Chinese journals that stockpiles exist, but little documentation that they are increasing, automobile stocks being perhaps an exception. On the contrary, other articles specifically report inventory declines. For 1984-85, in both heavy and light industry, investigation of inventories and reports of sales imply that most inventories

Table 3-3
MONTHLY GROWTH OF INDUSTRIAL OUTPUT, 1984-1985

	Year/Month	Heavy Industry	Light Industry	Total Industry
Growth Rates (Percent)				
1984	Mar	11.7	11.9	12.1
	Apr	11.0	10.8	11.1
	May	12.4	11.7	11.7
	Jun	11.2	10.0	10.9
	Jul	14.5	12.8	13.9
	Aug	16.4	13.2	14.4
	Sep	15.1	13.1	14.2
	Oct	14.5	15.0	14.8
	Nov	17.1	16.5	16.5
	Dec	11.3	20.7	17.8
1985	Jan	22.3	26.4	24.5
	Feb	18.1	24.7	21.3
	Mar	20.5	25.7	23.0
	Apr	21.9	26.2	24.1
	May	21.7	24.4	22.8
	Jun	21.0	24.4	22.7
	Jul	18.4	22.8	20.8
	Aug	14.6	20.3	17.4
(Bil 1980 Yuan)				
1985	Aug	34.42	33.18	67.60

NOTE: Growth rates are over the same month in the previous year.
SOURCES: Official data. (J5CE06.D5H)

are falling rather than growing. Given this overall pattern of information, it is highly unlikely that a gross build-up of inventories is the explanation for 1985's reported 20 percent plus increase in industrial output.

In short, although some of the factors listed above deserve serious attention, they cannot, either individually or as a group, take much away from the record detailed by month in Table 3-3. In contrast to the many weak arguments which discount or dismiss China's industrial record, optimistic signs provide convincing support that the high growth rate is accurate.

For example, relative to past years, physical output growth of a large number of individual products is extremely high. From electric fans to beer, woolen goods to coal to plate glass and internal combustion engines, physical output is 20 percent, 30 percent, 40 percent, and in come cases 50 percent over the same period in 1984. (Output levels and growth for these and other commodities are found in the Statistical Appendix to this chapter.)

The energy bottleneck, once considered so critical, has been temporarily eased by the impressive gains in conservation, in addition to double digit growth in oil and coal production for the first half of 1985, following output growth of roughly 9 percent in 1984. (Monthly growth in energy output is shown in Table 3-4, below, to correspond with the monthly industrial output data in Table 3 earlier. For more information, see Chapter 4, Energy.) All signs point to a major output acceleration.

Table 3-4
GROWTH IN MONTHLY ENERGY OUTPUT 1984-1985

	Month	Coal	Crude Oil	Natural Gas	Electricity	Hydro-Power
Growth Rates (Percent)						
1984	Jun	5.9	6.9	-.3	5.6	-2.6
	Jul	11.8	8.3	.7	7.1	7.2
	Aug	8.6	9.4	-5.3	5.9	3.1
	Sep	9.0	10.2	2.5	8.3	3.0
	Oct	10.3	10.6	9.9	6.2	5.2
	Nov	11.2	11.1	4.3	7.6	-9.1
	Dec	10.1	9.5	25.6	7.5	-2.1
1985	Jan	16.6	9.4	5.8	10.4	7.3
	Feb	10.3	9.0	6.1	4.6	-2.8
	Mar	13.7	9.2	6.0	7.6	2.5
	Apr	11.6	12.5	13.9	9.9	14.1
	May	11.0	9.9	6.0	8.4	2.7
	Jun	18.7	11.1	7.8	9.2	6.8
	Jul	11.9	10.6	5.8	8.3	-5.8
	Aug	9.2	7.6	5.5	7.1	5.3
Output*	Aug	69.2	10.6	10.5	338.4	90.8
Output M MTSCE	Aug	49.4	15.1	1.4	4.2	1.1

* Reported as follows: Coal and Oil in million tons, Natural Gas in hundred million cubic meters, Electricity in billion kWh. M MTSCE refers to million Metric Tons of Standard Coal Equivelant.
SOURCES: Official Monthly Statistics. (J5CE03T.D5H)

The potential for growth is particularly significant for light industry. Since December of 1984 light industry has consistently outpaced heavy industry, confirming that official policies to encourage light industrial output are bearing fruit. The major reason for stimulating light manufacturing is to satisfy consumer demand generated by rapidly rising personal incomes. Supply factors also favor more rapid growth in light industrial consumer goods because they are more labor- and less energy-intensive. In a policy statement in early September, the Central Party Committee stressed the goal of reducing the proportion of material inputs and raising labor inputs to 30 percent of final value, suggesting the need for more light industry in total industrial output.

A different production shift, from state- to collectively-owned enterprises, is documented in Table 3-5. The shift comes as a result of the formal transfer of approximately three thousand enterprises from state to collective ownership in 1984 and the implementation of urban management reforms. Over 40 percent growth in the first half of 1985 in the collective and individual enterprise sectors is a clear indication of the growing importance of decentralized management and ownership.

Table 3-5
INDUSTRIAL OUTPUT BY FORM OF OWNERSHIP, 1980-84

	Gross Value of Industrial Output				
	State Owned	Collectively Owned	Village Industry*	Other Forms	Total With Village Industry*
(Percent)					
1980	5.6	18.8	25.1	-	11.0
1981	2.5	9.4	12.2	11.5	4.6
1982	7.1	9.5	9.7	27.7	7.8
1983	9.4	13.5	21.8	33.9	11.1
1984	11.0	21.9	47.5	56.8	15.9
1985 *	14.5	46.7	na	42.9	na
(Bil 1980 Yuan)					
1984	527	166	55	9	757

* NOTE: Village Industry is currently being redefined as part of Industry proper.
SOURCES: Official statistics and RCR calculations. See Statistical Appendix.

In addition to shifting ownership, the urban reforms have introduced the threat of business failures and are promoting new kinds of cooperation across regions and across sectors. The State Economic Commission has issued regulations on "the liquidation and reorganization of companies" to formalize the separation of government and enterprise responsibility. In August, for the first time in the Peoples Republic, three enterprises were declared to be on the brink of bankruptcy. The three plants, all in Liaoning province, have debts exceeding their assets, and were given one year to recover.

The military has become an active participant in civilian industry under the relaxation and reforms. The defense sector is promoting industry both through technology transfer and actual manufacturing of civilian machinery. The weapons industry department has reportedly successfully transformed some production lines into manufacturers of equipment for tannery, cigarette, tea, rubber, and paper-making enterprises. Agreements on the transfer of military technology to civilian uses have increased rapidly from just over 400 items in 1983 to more than 6800 in 1984 and more than 9000 in trade fairs in Peking and Hangzhou alone this year.

Finally, strong and sound growth in investment, as well as the growth and commercialization of agriculture, are sustaining the industrial momentum. Investment in capital construction grew 24 percent in 1984, and over 30 percent in the first half of 1985. The related high growth in both the machine-building and building materials industries is evident in Table 3-6, below. With bank loans and internal funding providing added incentives to monitor investment quality, such very large growth in investment forms one of the most basic sources of sustained industrial growth. The strong growth in agriculture and the freeing up of agricultural workers through the rural reforms is also contributing to the sustained growth in industry. For more details see the chapters on Agriculture, Investment, and Banking and Finance.

Table 3-6
ANNUAL GROWTH OF GVO BY INDUSTRY TYPE 1978-1984
(Percent and Billion Yuan)

	Percentage Growth							Gross Output
Industry	1978	1979	1980	1981	1982	1983	1984	1984
Total	13.48	8.75	8.52	4.13	7.72	10.52	14.04	702.99
Metallurgy	26.98	11.21	4.88	-3.46	6.25	7.92	10.64	57.94
Power	14.20	9.48	6.60	3.03	6.27	6.36	6.98	23.56
Coal & Coke*	13.32	9.70	-3.25	-1.58	5.75	7.23	9.36	18.22
Petroleum	2.86	6.98	1.10	-2.75	2.07	7.68	7.74	33.41
Chemical	23.92	7.02	10.76	4.66	11.43	12.46	12.03	83.03
Machine-building	11.41	7.74	2.31	-3.72	13.44	17.58	21.98	175.71
Building Materials	15.43	8.71	8.49	-.36	14.10	10.27	17.06	28.73
Forestry	10.59	9.48	2.25	-.57	7.01	3.39	9.25	12.68
Food	8.26	9.97	9.50	12.72	9.48	5.13	9.01	86.58
Textiles	14.86	12.09	24.01	18.06	1.27	10.29	13.27	108.29
Clothing	N/A	N/A	N/A	13.90	-3.60	8.12	N/A	N/A
Leather	N/A	N/A	N/A	13.49	-4.97	2.41	N/A	N/A
Paper	13.25	12.00	192.20	5.28	6.37	6.01	13.27	9.22
Other	7.09	5.56	-57.46	-.09	9.52	12.72	N/A	N/A

NOTE *: 1984 includes coal only, growth rate is based on 1983 coal.
Sources: 1978-1980 from World Bank, 1980-1984 from official Chinese sources.
(J5AK17.D5I)

The cumulative result of these trends and reforms is 1985's industrial record. It shows the capacity to support at least 1984's growth record, and possibly more. Sustained industrial growth greater than 20 percent is not unheard of. South Korea maintained industrial growth well above 20 percent for five years in the late 1960s, sustained by exports. For China, the strategy has had to be entirely different, building domestic demand through first rural, then urban reforms, shifting industrial production from state run factories to collective and individual enterprises, and fueling the growth with faster development of energy resources. The industrial record since 1981, as evidenced by the quarterly growth rates in Table 3-2, has shown that the strategy can work. The new energy availability, combined with growing consumer demand, high investment, and, foremost, the management and ownership reforms, are responsible for the remarkable 1985 industrial record, which peaked at 23 percent growth for the first half of the year.

POLICY

Urban reforms, primarily intending to decentralize industrial control, were announced in October of 1984. For industrial enterprises they covered external finances, factory management and power over production. By spring of 1985 in the second phase, Peking was reviewing the slowness of power transfer and moving to ensure that enterprises actually got the power the state intended for them. At the same time, further steps of the reforms continue to be implemented, including wage reforms, price reforms, bankruptcy policy, and quality control plans.

The first phase of industrial reforms covered three areas. First, they called for taxes to continue to take the place of profit delivery. (For details on tax reform, see Chapter 6, Banking and Finance.) Second, factory managers assumed full responsibility, reforming the bonus distribution system and other forms of contract responsibility. Third, departments were streamlined to give more power to enterprises over production, sales, prices, use of funds, personnel affairs and joint ventures. The number of mandatory plan targets under the State Planning Commission has been reduced from 365 to 65.

By May of 1985, 10,000 enterprises nationwide were experimenting with the transfer to factory directors of full responsibility for their enterprises wages, production and finances. The program had achieved some success, although it was not without political problems. It benefited the system of workers' congresses since the directors needed the backing of the workers. But problems, such as clarifying the relationships between factory directors, party committees and workers, and directors who abused their powers for their personal gain, were cited. Nonetheless, although it was still considered an experiment, regions and departments were encouraged to select more enterprises to expand the program.

As of June at least one province, Jiangxi, was promoting a responsibility system in large and medium businesses with the plant director, entrusted by the state, controlling the plant's production and operation. Under this system, the party secretary in the plant is subordinate to the director. At the same time, the province emphasized the need to relax control and insure that enterprises make clear a legal separation from local governments. Obligations to other departments and expenses other than paying taxes were strictly banned.

In mid-spring of this year, it was evident that much of the power the state was ostensibly handing down directly to medium and large enterprises was being intercepted by intermediate levels. The state announced in September that under no circumstances should the intermediate levels be allowed to become another level of government bureaucracy and tried to clearly seperate government and enterprise functions. However, an earlier release from a meeting reviewing reforms in 15 of China's largest cities described the process of insuring the delegation of power to lower levels as likely to become "a battle of storming heavily fortified positions" in separating government functions from enterprise.

The reform process continued with wage reforms in the summer. On July 1, 1985, the state adopted regulations tying wages to economic performance, to provide workers with incentives similar to those already in place in rural areas. The state economic commission announced plans to link wages and bonuses to taxes and profits. However, the tax on wages in state owned industries is sharply progressive, designed to discourage excessive bonuses and wage increases. The tax rate is zero for any increase in wages less than 7 percent over 1984's and thereafter increases rapidly to 100 percent for raises of between 12 and 20 percent. A 300 percent tax is levied on wage hikes over 20 percent.

In late summer two steps were taken to counter additional ongoing problems in industry, the high number of firms with consistent economic losses, and the decline in the quality of industrial output. First, a bankruptcy process for struggling enterprises was introduced. Formerly, they would have been merged with profitable enterprises. The new regulations allow the proper authorities from banking, tax, insurance and auditing departments as well as creditors to dispose of the frozen assets of a bankrupt firm and establish a fund to provide relief for workers laid off due to bankruptcy. Then, in September the State Economic Commission announced plans to oversee about 100 quality inspection centers and quality-test stations to run quality checks on up to 200 major industrial products every three months. However, the fundamental approach to product quality is to rely on technological progress with the underlying assumption that current quality problems will work themselves out naturally as technology improves.

PROBLEMS

The rapid growth in industrial output has increased the incidence of poor quality products, increased the threat of inflation and intensified shortages of raw materials. The shortages have driven up imports of industrial raw materials. Imbalanced growth due to inaccurate price signals and problems with plan discipline have also accompanied the industrial reforms. Losses by state enterprises continue to be a drain on state finances. In addition, the tax burden on some enterprises, especially large state ones, is high.

Low quality products, frequently counterfeits of famous Shanghai brand consumer goods, are increasingly reported. The State Economic Commission reported in August that there has been a marked trend towards product deterioration since the end of last year. The goods cited have ranged from automobiles, bicycles and wristwatches to cigarettes, food and medicine.

Shortages of raw materials and metals have forced conservation policies and large scale imports. Measures to increase rewards for fuel conservation have been experimented with since 1979 and are now being implemented in a wider area. The list of materials has also been lengthened from 10 to 20 to include important industrial materials such as quality steel and cement, soda ash and paper pulp. At the same time imports are easing some of the most acute shortages. In the first quarter of 1985, the machine building industry's output rose 34.4 percent, but the output of iron ore, pig iron, steel and steel products increased only 6 to 13 percent. Iron and steel imports for the first quarter rose over 100 percent. See Trade, Chapter 7, for more data on imports.

Some sectors are still following incorrect price signals, leading to excessive, unbalanced, or inadequate growth. Recurrent shake-outs in various industries are anticipated, as investment mis-judges market potential. The shortage of cotton yarn in Shanghai, a major textile center, illustrates the skewed growth produced by poor price signals. The textile ministry reports that the shortage resulted from rapid increases in post-processing capacity while capacity for the less profitable cotton yarn production remained constant. In addition, more of the cotton produced was being sold to village and township enterprises at higher prices than the Ministry's state enterprises. To deal with shortages, preferential tax treatment will be offered to enterprises producing less profitable products, and the distribution of profits will be readjusted to encourage cotton yarn production. Actual price changes will face continued resistance from state enterprises.

The automobile industry similarly exemplifies the problem of misjudging market potential, over-investment and duplication. The Automobile Industry Corporation of China predicts the need for automobiles by 1990 will be 900,000 but with planned increases, capacity could be more than three times that amount. In the first five months of this year alone, 25 new plants opened, all with output too low to achieve economies of scale. In order to make a profit, enterprises in other sectors have also engaged in vehicle assembly, for which they were ill-suited. The quality of the vehicles from these transformed plants has been very low.

Losses by state-run enterprises continue to be a burden on state finances, despite reforms calling for independent accounting and enterprise responsibility for profits and losses. The national budget for 1985 anticipated losses incurred by state industrial enterprises this year would be 20 percent lower than in 1984. However, by the end of May the losses had increased by 3.6 percent, 1.3 billion yuan over the same period last year. Refer to the Banking and Finance chapter for more on state subsidies to industry.

Crucial industrial goods are still subject to state plans, for which enterprises sign contracts with the state. After they have fulfilled contracts with the state, enterprises can sell their remaining goods in the "free" market or at negotiated prices. However, since the state prices are lower than market ones, contract fulfillment has been low. In one example cited, the Anshan Iron and Steel Company had supplied only 23 percent of their contracted pig iron to the state in the first half of the year. Lack of materials thus threatens and delays state construction projects.

Tax burdens on enterprises are heavy, especially for the large state enterprises which are supposed to be the key to urban reforms. According to Xinhua surveys, roughly 80 to 90 percent of their profits are delivered to the state. Collective enterprises in cities and towns deliver roughly 50 percent, while village industries deliver only 30 percent. Changsha, Hunan, town-run enterprises provided 56.5 percent of county revenues in 1984, despite provincial regulations stating profit delivery should be less than 30 percent. Enterprises have been asked to pay 30 kinds of charges. Enterprises under the coal departments received the most random charges and had their prices forced down by local officials, despite the production and marketing problems coal is facing.

In general, China's real economic resources are of high and improving quality by third world standards. Specific developments in late 1984 and 1985 have greatly enhanced actual output and the demand for that output. The improved welfare could provide a cushion to help this year's much needed price reforms. However, the balance between growth in income and output is precarious and the risk of inflation is a political liability for Deng's programs.

PROSPECTS

Some moderation in the rapid overall industrial growth is anticipated. At 20 percent growth, industrial output would double in well less than four years. But sustained growth at 20 percent is highly unlikely, straining as it would so many required input supplies, especially those for management and skilled labor. In fact, the growth rate has already come down since midyear, with August's industrial output up 17.4 percent, and the third quarter's up 19.5 overall. But even if growth settles at some much lower rate, say 15 percent, China's economy will quickly find itself transformed, with industrial output in 1995 as much as four times what it is today.

The draft five-year plan for 1986-1990 has called for a gradual cooling of in its first two years. This is perceived as preferable to a sudden slow-down in late 1985. In fact, China's officials have a poor record of fine-tuning the economy, and efforts, however gradual, to slow the economy in late 1985 and 1986 will probably have a greater-than-intended effect. Output growth in 1986 is most likely to fall close to 10 percent, which is still very high growth by international standards.

The structure of industrial output is expected to shift substantially towards more labor-intensive branches. Collective industry has been growing faster than state industries, but rural industry is outpacing both of them. See Table 3-5. In rapidly growing Jiangsu province, 40 percent of the rural labor force is engaged in industry. Light Industry Minister, Yang Bo said the Seventh Five Year Plan will stress light industry. Although light industry development has been rapid, consumer tastes and purchasing power have changed and increased faster. Priority will be given to higher quality and brand name consumer goods. With the bulk of light industrial goods being produced by small and medium plants, there is large need of technological transformation. Mostly enterprises will have to rely on their own or foreign funds to upgrade and renovate.

The shifts in value and ownership of industrial output from state to collective and other forms which are so evident in Table 3-5 is expected to continue.

Official targets for the next five years call for 7 percent growth, increased emphasis on developing rural industry and on technical renovation and continued reforms in urban enterprises. Village industry is suppposed to absorb surplus agricultural workers as well as provide goods to the peasants at their increasing income levels and should be self-financed. Other industrial development is to be focused on technical transformation of existing facilities and continued management reforms, both of which should increase efficiency and improve the quality of output. The machine building and electronics industries are targeted to undergo transformation first since they supply other branches of industry.

STATISTICAL APPENDIX: INDUSTRY OUTPUT AND GROWTH

(Item)	(Units)	1980	1981	1982	1983	1984	1985 I-II
Coal							
	..........(million tons)	620	622	666	715	789	414
	..............(% growth)	-2.4	.3	7.1	7.4	10.4	11.8
Crude Oil							
	..........(million tons)	106	101	102	106	115	61
	..............(% growth)	-.2	-4.5	.9	3.9	8.1	10.9
Natural Gas							
	..(billion cubic meters)	14.3	12.7	11.9	12.2	12.4	6.4
	..............(% growth)	-1.7	-10.7	-6.4	2.3	1.8	7.9
Electrical Power							
	..........(billion kWh)	301	309	328	351	377	199
	..............(% growth)	6.6	2.9	5.9	7.2	7.3	9.1
of which:Hydropower							
	...........(billion kWh)	58.2	65.5	74.4	86.4	86.8	42.5
	..............(% growth)	16.2	12.5	13.6	16.1	.5	7.4
Pig iron							
	..........(million tons)	38	34	36	37	40	21
	..............(% growth)	3.5	-10.1	3.9	5.3	7.0	6.3
Steel							
	..........(million tons)	37	36	37	40	43	23
	..............(% growth)	7.7	-4.1	4.4	7.7	8.6	7.3
Rolled Steel							
	..........(million tons)	27	27	29	31	34	18
	..............(% growth)	8.8	-1.7	8.7	5.9	9.8	10.6
Cement							
	..........(million tons)	80	83	95	108	123	67
	..............(% growth)	8.1	3.8	14.8	13.7	13.6	18.4
Plate glass							
	.........(million cases)	28	31	35	42	48	27
	..............(% growth)	18.9	10.6	15.7	17.5	15.9	22.9
Caustic soda							
	..........(million tons)	1.92	1.92	2.07	2.12	2.22	1.16
	..............(% growth)	5.3	.0	7.8	2.4	4.7	5.4
Total Chemical fertilizer							
	..........(million tons)	12.32	12.39	12.78	13.79	14.60	7.47
	..............(% growth)	15.6	.6	3.2	7.9	5.9	.6
Chemical pesticides							
	.........(thousand tons)	537	484	457	331	299	136
	..............(% growth)	.0	-9.9	-5.6	-27.6	-9.7	-25.5
Plastics							
	..........(million tons)	.90	.92	1.00	1.12	1.18	.60
	..............(% growth)	13.2	2.0	9.5	11.8	5.3	3.8
Mining equipment							
	.........(thousand tons)	163	115	158	202	258	156
	..............(% growth)	-38.4	-29.3	37.7	27.4	28.0	41.4
Metal Cutting Machine tools							
	..............(thousands)	134	103	100	121	134	78
	..............(% growth)	-4.3	-23.2	-2.7	21.2	10.3	22.4
Automobiles							
	..............(thousands)	222	176	196	240	316	225
	..............(% growth)	19.7	-21.0	11.8	22.2	31.9	58.8

(Item)	(Units)	1980	1981	1982	1983	1984	1985 I-II
Tractors							
	(thousands)	98	53	40	37	40	26
	(% growth)	-22.2	-46.0	-23.7	-8.2	7.3	20.1
Locomotives							
	(units)	512	398	486	589	658	393
	(% growth)	-10.6	-22.3	22.1	21.2	11.7	19.1
Cotton Yarn							
	(million tons)	2.9	3.2	3.4	3.3	3.2	1.7
	(% growth)	11.0	8.3	5.8	-2.5	-1.6	5.3
Total Cloth							
	(billion meters)	13.5	14.3	15.4	14.9	13.7	6.9
	(% growth)	10.9	5.9	7.6	-3.1	-7.9	.3
Chemical Fibers							
	(thousand tons)	450	527	517	541	735	459
	(% growth)	38.0	17.1	-2.0	4.6	35.9	34.1
Woolen Fabric							
	(million meters)	101	113	127	143	180	105
	(% growth)	12.0	12.0	12.0	12.8	26.3	30.1
Paper							
	(million tons)	5.4	5.4	5.9	6.6	7.6	4.0
	(% growth)	8.5	.9	9.1	12.2	14.4	18.2
Beer							
	(million tons)	.7	.9	1.2	1.6	2.2	1.4
	(% growth)	32.7	31.9	28.6	39.3	37.4	43.9
Cigarettes							
	(million cases)	15.2	17.0	18.9	19.4	21.3	11.1
	(% growth)	16.7	12.1	10.6	2.8	10.0	18.6
Bicycles							
	(millions)	13.0	17.5	24.2	27.6	28.6	15.6
	(% growth)	29.0	34.7	37.9	14.0	3.7	13.0
Sewing Machines							
	(millions)	7.7	10.4	12.9	10.9	9.3	4.7
	(% growth)	30.8	35.3	23.8	-15.5	-14.0	-1.8
Total Television Sets							
	(thousand sets)	2,492	5,394	5,920	6,840	10,038	7,979
	(% growth)	87.6	116.5	9.8	15.5	46.8	84.5
Color Television Sets							
	(thousand sets)			288	531	1,340	1,623
	(% growth)				84.3	152.2	240.0
Cameras							
	(thousands)	372.8	623.0	742.3	925.6	1,261.8	783.4
	(% growth)	56.6	67.1	19.1	24.7	36.3	42.6
Household Washing Machines							
	(thousands)	245	1,281	2,533	3,659	5,781	4,117
	(% growth)	1,261.1	422.9	97.7	44.5	58.0	70.0
Refrigerators							
	(thousands)			99.9	188.5	547.4	565.5
	(% growth)				88.7	190.4	220.0

SOURCES: State Statistical Bureau, "Yearbook of China 1984", and "Communique", March, 1985, China Economic News, July 22, 1985. (J5CE01T.D5H, J5CE02T.D5H)

CHAPTER FOUR - Energy

EXECUTIVE SUMMARY

TRENDS
- Chinese energy output since 1981 has averaged an impressive 8 percent growth a year, without significant offshore oil finds.
- Very rapid increases in crude oil exports in 1984-85 have been in part the result of domestic conversion from oil to coal.
- Sustained energy conservation in industry, together with output growth, have for now eased the once-critical energy bottleneck.

POLICY
- State investment has given energy the highest priority.
- Coal reforms are allowing new price and market flexibilities.
- New output is being sought onshore near east-coast cities.

PROBLEMS
- Energy's biggest problems are its low relative pricing, low level of technical sophistication, and geographic isolation.

PROSPECTS
- China's plan to double energy output by 2000 is conservative.
- The best prospects for foreign participation are in coal and onshore oil.

TRENDS

The most significant trends in China's energy sectors have been the rapid and sustained increases in energy output since 1981, the strong role being played by energy conservation in further easing the energy bottleneck, and China's conterted efforts to maintain and increase foreign exchange earnings from crude oil exports in the face of rapidly declining world oil prices.

Table 4-1
PRIMARY ENERGY OUTPUT, 1975-85

	COAL	CRUDE OIL	NATURAL GAS	HYDRO-POWER	TOTAL
		(Percent Growth)			
1975	16.7	18.8	17.5	15.0	17.2
1976	.2	13.1	14.1	-4.2	3.5
1977	13.9	7.4	20.0	4.4	12.3
1978	12.4	11.1	13.3	-6.3	11.9
1979	2.8	2.0	5.7	12.3	2.7
1980	-2.4	-.2	-1.7	16.2	-1.6
1981	.3	-4.5	-10.7	12.5	-1.1
1982	7.2	.9	-6.3	13.6	5.4
1983	7.2	3.9	2.3	16.1	6.5
1984	10.3	8.1	1.8	.5	9.5
1985*	11.8	10.9	7.9	7.4	11.5
		(Million Tons Standard Coal Equivalent)			
1984	563.35	163.89	16.53	10.63	754.40

* NOTE: 1985 figures for first six months only.
SOURCES: Officially released data. (J5AF30)

After **slow growth and stagnation in 1980-81** and recovery in 1982, China's energy output has grown at an average annual rate of over 10 percent from 1983 through the first six months of 1985, showing that at least for now, **energy is no longer the constraint on China's economic growth** it was thought to be a few years ago. China's respectable recovery in energy output after the 1980-81 recession is shown clearly in Table 4-1, above, which gives growth rates for major primary energy sources. The bottom row gives physical output levels for 1984, illustrating how coal dominates China's energy sector, providing three times more primary fuel than oil. Together, coal and oil account for almost all (96 percent in 1984) of China's energy output.

Both **coal and oil** have **recovered strongly** from the 1980-81 recession. Coal's growth performance has been sustained since 1982, the first year of recovery, with output **growing at double-digit rates** since 1982. Overall **1985 coal output will certainly exceed the original official 790 million ton target,** probably by as much as another 100 million. Oil output recovered in 1983, and has since enjoyed sustained, rapid growth, with output growing 10.9 percent in the first six months of 1985.

The **1980-81 recession**, rather than a planned slowdown for "readjustment," as often depicted by Chinese officials, was a **reaction to severe budget cuts** after the 1979 Vietnam fighting, sharply increased food subsidies, and excessive investment spending during the 1977-78 "mini-Great Leap." These budget cuts affected the subsidies on which the energy industry, and in particular coal, because of its low pricing, so heavily depends. In addition, 1981 investment levels fell dramatically, as illustrated in Table 4-2 below. This is especially true for the coal industry, where state investment fell by over 30 percent in 1981, and the oil industry, where investment fell by 16.3 percent.

Table 4-2
State Capital Construction in Energy, 1978-84
(million Yuan)

	Coal Industry	Oil Industry	Power Industry	Total Energy*
1978	3,180	3,112	5,091	11,470
1979	3,186	2,707	5,099	11,098
1980	3,347	3,338	4,814	11,565
1981	2,315	2,795	4,014	9,464
1982	2,985	2,530	4,623	10,223
1983	4,007	2,902	5,746	12,760
1984	--	--	--	16,596

* NOTE: Total includes coking industry.
SOURCES: Official State Statistical Bureau data.

As Table 4-2 illustrates, **investment levels recovered** in 1983, and have grown rapidly since then, increasing by over 30 percent in 1984. Preliminary data show that this strong growth has continued into 1985, with energy investment for the first six months 30.7 percent higher than in 1984. This recovery and subsequent strong growth in investment points to continued ouput gains for both coal and petroleum.

China's **strong energy output performance**, confirmed by output figures for 1984 and the first six months of 1985, has come **without major successes in offshore exploration** or completion of the large-scale coal mining operations planned for later in the decade. Offshore drilling has yielded disappointing results, and the highly visible Chinese-foreign ventures for coal extraction are not yet on line. For oil, the growth has come from existing fields, and new on-shore oil discoveries. For coal, the growth has come from small local mines.

For both coal and oil, output **growth** can be interpreted as resulting **from decentralized management** of mines and wells. This is shown clearly for coal in Table 4-3, below, where output for state owned mines has grown 2.4 percent in the five years since 1979, while output from local mines has grown 6.9 percent--almost three times as fast.

Table 4-3
HISTORICAL OUTPUT OF COAL BY OWNERSHIP TYPE

	1979	1980	1981	1982	1983	1984	1985**
Total Output (mn tons)	636	620	622	666	715	789	790
State Mines	358	344	335	350	382	402*	390
Local Mines	278	276	287	316	333	387	400
Share of Total (percent)							
State Mines	56.3	55.5	53.9	52.5	53.5	51.0	49.4
Local Mines	43.7	44.5	46.1	47.5	46.5	49.0	50.6

NOTES: *Preliminary 1984 breakdown, see FBIS, November 27, 1984 page K22.
**1985 figures represent State targets, not actual output.
SOURCES: Official data and press releases.

Official growth targets show that the **share of output from local mines is to rise further** in 1985, from 49 to 51 percent of total output. In fact, output from local mines is growing much faster than planned. Data for the first half of 1985 indicate that local coal production is growing at over 19 percent, while output from state mines is growing at 4.6 percent. This national trend is complemented by regional developments. For example, in Henan province, China's second largest coal producer (after Shanxi), first quarter 1985 ouput from small rural mines was twice that of the first quarter in 1984, while output from state mines lagged far behind.

Equally as important as the increased level of output have been the rapid **strides** made by the Chinese **in energy conservation**. Since the mid-1970s, China has controlled domestic energy consumption, causing it to grow more slowly than output and allowing a larger and larger surplus to be either exported or added to inventories. Only in 1980 was the sudden slump in output not matched by an equivalent fall in consumption. Although data on consumption or change in inventories for the first half of 1985 are not yet available, there is evidence that energy consumption restraint has continued. A study from Shanghai, China's major industrial center, reported that, of the energy consumed to raise output in the first five months of 1985, 80 percent came from energy conservation, while only 20 percent of the growth in output was fueled by new energy supplies. Table 4-4 below illustrates this energy conservation since 1978 by showing the increase in consumption to be slower than the increase in output.

Table 4-4
ENERGY SUPPLY AND DEMAND IN CHINA, 1970-1984
(Million Tons Standard Coal Equivalent)

YEAR	COAL			CRUDE OIL			TOTAL ENERGY		
	Production	Consumption	Stock Changes and Net Exports	Production	Consumption	Stock Changes and Net Exports	Production	Consumption	Stock Changes and Net Exports
1970	252.8	236.9	15.8	43.8	43.0	.9	302.9	285.3	17.6
1971	279.9	273.2	6.7	56.4	55.2	1.2	344.3	336.4	7.9
1972	292.7	288.9	3.8	65.3	64.0	1.3	368.0	362.9	5.1
1973	297.7	292.7	5.0	76.7	72.7	4.0	387.1	378.1	9.0
1974	294.9	289.6	5.3	92.7	83.2	9.6	402.7	387.9	14.9
1975	344.1	326.4	17.8	110.2	95.7	14.5	472.0	439.1	32.8
1976	344.9	333.0	11.9	124.6	110.0	14.6	488.5	462.0	26.6
1977	392.7	367.8	24.9	133.9	118.4	15.5	548.6	508.1	40.5
1978	441.3	403.8	37.4	148.8	129.9	18.9	613.8	557.5	56.3
1979	453.4	417.8	35.6	151.8	127.7	24.1	630.6	570.9	59.8
1980	442.7	432.8	9.9	151.5	126.9	24.6	620.3	585.8	34.6
1981	443.8	432.4	11.4	144.7	118.4	26.3	613.6	575.9	37.7
1982	475.8	457.8	17.9	146.0	115.6	30.4	646.8	600.3	46.5
1983	510.2	483.9	26.3	151.7	121.8	29.8	688.7	632.7	56.0
1984	563.4	531.3	32.0	163.9	124.9	39.0	754.4	683.5	70.9

NOTE: Natural gas and hydroelectric production and use are included in the total.
SOURCES: Official statistics and RCR calculations (J5AF35).

The **large increase in petroleum exports** for the first half of 1985 is further evidence of conservation gains. Crude oil export volume grew by 41.7 percent over the first half of 1984, far outstripping growth in output of 10.9 percent. **Coal exports**, however, **fell by 2.4 percent** in the same period, whereas output grew by 11.8 percent. This discrepancy may indicate success in conserving oil and in the campaign to convert energy users from petroleum to coal, largely so petroleum exports can be increased in the face of falling prices.

Table 4-5
ECONOMY-WIDE ENERGY SAVINGS, 1979-84

	Overall Economic Growth	Energy Consumption	Energy Use per Unit Output
	(percent growth)		
1979	7.0	2.4	-4.3
1980	6.4	2.6	-3.6
1981	4.9	-1.7	-6.3
1982	8.3	4.2	-3.8
1983	9.8	5.4	-4.0
1984	13.9	8.0	-5.1

SOURCES: Official statistics and RCR calculations (J5CBE14t.r5j).

Table 4-5, above, compares overall economic growth with consumption of energy and shows the very large sustained gains through energy conservation. As Chinese officials have pointed out, a **portion of recent energy savings** is **due to changes in the economic structure.** In part, this is due to a shift from heavy industry, a major consumer of energy, to light industry, where output value is higher per unit of energy input. However, this shift should not be overemphasized, since heavy industry still represents half of industrial output. Within heavy industry, less efficient plants have been shut down. In both industry and agriculture, emphasis is shifting to higher value-added products, with correspondingly lower energy input per unit of output value.

China can achieve these energy savings because her overall use of energy is so **inefficient by world standards.** Table 4-6 below illustrates China's highly inefficient use of energy, and in particular the inefficient use of coal, the energy source on which Chinese industry is most dependent.

Table 4-6
INTERNATIONAL ENERGY CONSUMPTION COMPARISONS, 1981

	Per Capita GNP (US $)	Per Capita Energy (Kg Coal)	Per Capita Coal (Kg)	Per Capita Thermal Power (Kwh)	Thermal-Coal Ratio (x1000)	Energy Per GNP $ (Gram)	Coal Per GNP $ (gram)
United States	13,160	11,626	2,515	7.94	3.2	883	191
Brazil	2,240	1,101	66	.10	1.5	492	30
China	310	618	436	.12	.3	1994	1406
India	260	210	128	.11	.9	808	490
Japan	10,080	4,649	791	3.43	4.3	461	78
Korea, South	1,910	1,563	669	.98	1.5	818	350
Germany, West	12,460	6,053	2,011	4.81	2.4	486	161
Poland	5,635	5,799	3,872	3.12	.8	1029	687
U.S.S.R	6,619	6,422	1,870	2.12	1.1	970	282

NOTE: Per capita Energy and Energy per GNP $ are measured in terms of standard coal units (7000 kcal/ton).
SOURCES: Various World Bank and U.N. publications, and other sources. For details contact Rock Creek Research.

Data in Table 4-6, above, on energy and coal requirements per unit of GNP show how inefficiently China uses what energy resources she has. **Japan**, the most efficient energy user, **produces more than four times as much with each unit of energy input.** For coal, China uses more than twice as much coal per GNP dollar as Poland, the next most inefficient user. Poland is almost as reliant upon coal as China. It is also interesting to see in Table 4-6 how little of China's coal is used to generate thermal electricity, reflecting both inefficient generation and large-scale direct use of coal for industrial purposes.

Electric power output growth in China has averaged 7 percent a year since 1978, in spite of very uneven performance for hydroelectricity. Patterns of thermal power generation and shortage confirm the inefficient use of energy in general and the critical need for power generating and transmission capacity. In spite of **consistent growth** in electrical power generation over the last ten years (see Table 4-7 below), China's power **supply can still not meet demand.** Chinese officials consistently cite surveys which show that 30 percent of industrial capacity is idle at any given time because of electric power shortages.

In addition to using little of its coal to generate electricity, China **generates thermal power inefficiently.** China is about half as efficient as some advanced countries in this field, and its efficiency is expected to improve as much as 40-50 percent by the end of the century.

Table 4-7
ELECTRIC POWER GENERATION, 1975-85

	Thermal Power	Hydro-Power	Total
	(percent growth rates)		
1975	16.3	15.0	16.0
1976	6.3	-4.2	3.7
1977	11.6	4.4	10.0
1978	20.6	-6.3	14.9
1979	9.4	12.3	9.9
1980	4.5	16.2	6.6
1981	.6	12.5	2.9
1982	3.9	13.6	5.9
1983	4.6	16.1	7.2
1984	9.5	.5	7.3
1985*	9.6	7.4	9.1
	(billion kilowatt-hours)		
1984	290.2	86.8	377.0

Sources: Official Chinese data (J5CBE11t.R5J).
*NOTE: 1985 growth rate is for first six months only.

Hydropower accounts for a **significant portion** (22.9 percent in 1984) of China's **electric power generation**, but has grown more slowly than thermal power in recent years. Growth in hydropower generation was rapid through 1983, but slowed to .5 percent in 1984, followed by growth of 7.4 percent for the first six months of 1985. So far, this represents a poor recovery from the 1984 slowdown.

The **1984 slowdown** in hydropower output is partially **due to irregular rainfall patterns** in many parts of the country, including serious drought in parts of North China, making analysis of overall trends difficult. Additionally, investment in hydropower has grown much more slowly than investment in thermal plants in recent years (20.1 percent from 1980 to 1983, as opposed to 31.4 percent for thermal), while investment in transmission facilities is growing at an even slower rate (3.2 percent from 1980 to 1983).

POLICY AND REFORMS

Increasing energy output and **rationalizing consumption** patterns have been given high priority through both direct and indirect government steps. Direct measures have centered around investment allocations and a well-developed price reform program, especially in the coal industry. Indirect measures include the general urban industrial reforms. These general reforms have substituted net earnings incentives for physical output targets, prompting energy conservation even in advance of price reforms.

Energy has been given continued **high priority in State investment.** Investment in the energy industry reached 6.6 billion yuan in the first half of 1985, 30.7 percent higher than in the same period of 1984. Investment in energy continues to make up the bulk of state capital construction in industry, 49 percent in 1984, but down slightly for the first half of 1985 to 45.1 percent.

In the **coal industry**, a combination of **price and management reforms** is being introduced to rationalize supply and consumption through market forces. The reforms have already brought out dislocation problems which will have to be solved not only for coal, but for the economy as a whole if the use of financial incentives is to succeed.

Price reform has **dramatically altered** the **way coal is distributed** and consumed. Just as for earlier reforms in agriculture, coal industry reforms were first experimented with at select coal mines. In 1983, a trial program was introduced in 22 mining administrations in China's eastern region to allow higher prices for coal production in excess of quotas. In addition, mines were allowed to sell above-quota coal to whomever they wished. Individual end-users, both state and local, were charged higher prices for deliveries over their standard orders. The ingenuity of the system is in its influence over decisions at the margin. It affects decisions about additonal output and increased consumption without ruining the financial positions of subsidized state enterprises.

As part of the price reform program, **wider variations in coal prices** will be implemented to reflect different grades of coal. Industrial users are already beginning to pay higher prices. According to official announcements, the price of coal is being raised to encourage conservation and more efficient use. Thus, goes the official argument, higher coal prices should not result in higher prices for final products. The price of coal for household consumption is expected to remain stable, due to continued government subsidies meant to cushion politically unstable urban areas from the impact of price reform on living standards.

The **management aspects** of the experimental reforms include **greater freedom given to coal mines,** power companies, chemical plants, and other end-users to form joint ventures and compensatory ventures to coordinate production, transportation, and marketing. By late 1984, however, problems developed in supplying standing-order customers. It seems that the profit incentive and the return on new cooperative ventures caused coal to be diverted from traditional customers with standing orders to affiliates and other customers willing to pay higher prices.

A further policy initiative in the coal industry is aimed at dealing with the **isolation problem.** Since most of China's coal is in Shanxi and the west, transport was seen as the only answer to the energy shortage on the east coast. By mid-1985, the Coal Ministry had begun giving high priority to developing coal reserves in eastern China, with 21.7 percent of state mine development investments in 1985 allocated for that region. Coal reserves in east China are mostly in Shandong and Anhui provinces and are estimated by the Chinese at over 44 billion tons (5.9 percent of total Chinese reserves), not as plentiful as in western China, but of good quality.

In the **petroleum industry,** just as for coal, policy has focused on **increasing output** and **rationalizing use.** For petroleum, this has meant shifting discovery and development efforts to **onshore fields,** both new and existing. Offshore, although there have been a few good finds, the results have been disappointing enough to make negotiations on a second set of drilling contracts more difficult for the Chinese. Rationalization of petroleum use, in addition to more traditional conservation efforts, has emphasized conversion of oil-burning facilities to coal-burning ones, primarily to make petroleum available for export.

One measure of the direct effort to produce more oil onshore is the emphasis on investment in **technical updating and transformation** in the petroleum industry. The oil industry received 15 percent of all such investment allocations in the early 1980's, more than double the level of technical transformation investment in the coal industry. From 1981 to 1983, technical transformation investment in oil grew at over 35 percent a year, much faster than for other industrial sectors.

Within China, the government has sought to **restrain domestic use** oil in order to increase the amount available for export. In addition to encouraging consumption restraint, the government has pursued a policy designed to switch power generation and other industrial uses from oil to coal-fired boilers. The success of this policy is indicated by the relatively small increase (2.5 percent in 1984) in oil consumption, as compared to growth in oil output of 8.1 percent in the same year, and growth in coal consumption of 9.8 percent. As illustrated in Table 4-4, most of the increase in stocks and net energy exports for 1984 is from oil consumption restraint. This trend has continued through the first half of 1985, with crude oil export volume growing by 41.7 percent, far outstripping output growth of 10.9 percent. According to the ministry responsible for petroleum exports, the China Nationa. Chemicals Import-Export Corporation, China is willing to restrain domestic oil consumption even more in order to increase exports, if markets can be found.

The policy of **conversion from oil to coal** wherever possible and of rapidly increasing petroleum exports has been necessary to compensate for rapidly weakening world oil prices. Table 4-8, below, shows the fall in petroleum prices China received from 1981 to 1985, and the compensating increases in exports to maintain earnings. The slow increase in export volume in 1982-83, as prices began to soften, caused foreign exchange earnings to stagnate and then decline, before recovering in 1984 and 1985 with a surge in export volume.

Table 4-8, below, gives growth rates (except for the top and bottom rows) for petroleum export volume, value, and average price. Exports are given for both crude and refined products. Most noticeable is the sharp average price decline for crude in 1983 and China's very strong volume export response in

1984. Detailed trade data show that a significant portion of this petroleum export was targeted for Japan, with which China seems to have a value barter agreement, swapping oil for steel. With falling world prices, China may have had difficulty keeping its deliveries up to the agreed-upon amount. For more detail, see Chapter 7 on Trade and Payments.

Table 4-8
CHINESE OIL EXPORTS, 1981-85

	Volume			Dollar Value			Price Change	
	Crude Pet-roleum	Refined Pet-roleum	Total Oil	Crude Pet-roleum	Refined Pet-roleum	Total Oil	Crude Pet-roleum	Refined Pet-roleum
1981 Level**	13,870	4,670	18,540	3,268	1,376	4,644	236	295
	(percent	growth)						
1982 I	28.4	35.9	30.3	21.8	30.9	24.5	-5.1	-3.8
II	15.1	4.6	12.6	9.9	-.1	7.0	-4.7	-4.5
III	-3.8	-13.0	-6.2	-11.0	-15.9	-12.5	-7.3	-3.1
IV	-7.4	3.1	-4.8	-13.4	-.6	-9.7	-6.2	-3.6
Average	**5.8**	**5.1**	**5.7**	**-.4**	**1.2**	**.1**	**-5.9**	**-3.7**
1983 I	-9.4	-9.6	-9.5	-17.0	-14.3	-16.2	-8.1	-5.0
II	-11.9	15.8	-5.6	-24.4	9.2	-15.4	-14.0	-5.8
III	22.8	6.7	18.9	10.4	8.1	9.7	-10.2	1.4
IV	1.6	-10.6	-1.6	-13.2	-21.5	-15.8	-14.6	-12.3
Average	**1.0**	**.0**	**.7**	**-11.2**	**-5.5**	**-9.5**	**-12.2**	**-5.6**
1984 I	35.2	13.3	29.3	25.0	3.7	18.1	-7.8	-8.6
II	63.5	13.6	49.6	58.1	6.3	40.2	-3.7	-6.1
III	22.2	21.1	22.0	12.6	3.3	9.9	-7.7	-14.7
IV	77.6	16.1	62.7	62.3	-1.4	43.3	-8.8	-14.8
Average	**48.5**	**16.1**	**40.4**	**37.8**	**3.1**	**27.0**	**-7.2**	**-11.2**
1985 I	56.1	18.0	47.1	50.5	10.5	39.1	-3.7	-6.1
II	31.0	-.2	24.4	25.3	-5.8	17.2	-4.3	-5.7
Average*	**41.7**	**8.2**	**34.3**	**36.2**	**1.7**	**26.8**	**-1.1**	**-3.4**
1984 Level**	22,010	5,700	27,710	3,984	1,356	5,340	181	238

SOURCE: Chinese Customs Statistics. (J5CBE17t.R5J)
NOTES: *1985 average growth for the first half only. Change in price for 1985 first half is relative to the 1984 average.
**Levels for 1981 & 1984 are in 1,000 tons for volume, million dollars for value, and dollars per ton for unit value.

PROBLEMS

In spite of rapid growth in recent years and good prospects for energy output growth in the near future, China's most serious energy problems remain: the **low level technical sophistication** in primary production and secondary conversion of energy, extreme **isolation** of many of the best energy fields from major consumers in industrial centers, **chronic shortage** in both urban and rural areas, and serious **weakening** in the **international oil market** on which China counts for a significant share of her foreign exchange earnings.

The **low level of technical sophistication** will be perhaps the most difficult for China to overcome without large expenditures of foreign exchange for **design, equipment, and training from Japan and the West.** The problem is most obvious and celebrated in the case of nuclear energy, but given the overwhelming importance of coal and petroleum in China's energy plans, the low technical level in these sectors is more critical. The coal and oil industries must modernize all aspects of energy extraction and conversion, not only to increase output, but also to improve health and safety conditions, which are particularly poor in China's many local mines.

Although energy output is growing most rapidly where demand for energy is highest, China's industrialization could proceed much faster and more economically if energy **transport and transmission growth** were as impressive as gains in output. Energy production in China's southern regions is very poor relative to needs, while the situation is just the reverse in the isolated North and Northwest. Roughly two-thirds of end-1984's 780 billion tons of proven reserves are in provinces in the north and northeast. High quality coal reserves are isolated, and transportation systems have been slow to develop.

For oil, the natural shortage of petroleum in the south and east accentuates regional disparities in total commercial energy availability. Although coal can be used in some applications in place of petroleum products, it is not as convenient as oil, and in many applications, substitution of coal is not possible. For hydro-electric power, regional differences are just as marked, with very little hydropower generated in the north and on the east coast, where industrial needs are the greatest.

Shortages in major cities and some rural areas continue to be a major problem for the energy sector in spite of recent rapid growth in energy output. According to recent reports, commercial energy supply in rural areas meets only 50-60 percent of demand. Given short supplies of commercial energy sources, rural dwellers resort to straw, firewood, and other natural sources for most (69 percent) of their energy needs. Commercial sources satisfy about a quarter of energy needs. (The corresponding figure for small towns is 43 percent.)

The **electric power shortage** is especially critical in urban areas. According to Chinese survey results, 30 percent of industrial capacity goes unused at any given time because of electric power shortages and sharing procedures. Sections of cities go without power on a regularly scheduled basis. Large scale projects, such as the Baoshan steel complex, have had to be delayed or scaled back due to insufficient power supply capability.

For Chinese energy exports, **low world energy prices** remain the biggest problem, affecting foreign earnings and direct foreign investment. For exports of onshore oil, low world oil prices mostly affect the Northeast, China's main source of crude for export. For regions without oil or access to the foreign exchange it earns, lower world oil prices might actually stimulate economic growth, as imports of refined petroleum products increase.

For development of the offshore oil industry, the world oil glut weakens

China's bargaining position vis a vis multinational oil companies, forcing China to relax terms. The drop in world coal prices from a high of $50 in 1982 to the present level of $40 a ton has detracted from investors' interest, although **China could profit from lower equipment prices.**

PROSPECTS

While **prospects** for China's energy output growth and energy conservation are **good** in the short and intermediate future, unsophisticated technology could reduce the long-term potential for output growth and increased efficiency in conservation and use. The well-known Chinese goal of **doubling 1980 energy output by the year 2000** is feasible, and possibly **conservative,** but will require the added productivity of Japanese and Western technologies. The extreme inefficiency of energy use illustrated in Table 4-6 shows great potential for savings. However, consumption savings will have to be close to 7 percent a year if output is to quadruple during the same 20-year period, as planned.

Table 4-9
ENERGY OUTPUT AND GROWTH TARGETS, 1980-2000

	Coal	Crude Oil	Natural Gas	Electricity
(historical growth rates)				
1980	-2.4	-.2	-1.7	6.6
1981	.3	-4.5	-10.7	2.9
1982	7.2	.9	-6.3	6.0
1983	7.2	3.9	2.3	7.2
1984	10.4	8.1	1.8	7.3
1985*	11.8	10.9	7.9	9.1
(target growth rates)				
- 1990	4.0	4.6	--	6.5
- 2000	2.2	3.5	5.2	8.1
(physical output)				
1984 Level **	789	115	12	377
2000 Target**	1,200	210	30	1,200

SOURCE: Official data and projections (J5C003s.R5J).

NOTES: *Output growth in 1985 is for the first six months only. Growth rates shown for 1990 and 2000 are the annual rates required to meet official targets, based on 1984 output levels.

**Physical output for 1984 and 2000 is in million tons for coal and oil, billion cubic meters for gas, and billion kilowatt-hours for electric power.

The **strong growth in energy output** since recovery from the 1980-81 recession is shown again in Table 4-9, above, in comparison to the growth rates required to meet **Chinese energy output targets** for 1990 and the year 2000. For coal and oil, historic growth rates have been significantly higher than the annual growth of 4.0 percent for coal and 4.6 percent for oil required to reach the 1990 target (one billion tons of coal and 200 million tons of oil). If 1985's rapid energy growth is added to the calculation, the annual growth rate required to reach 1990 targets drops to about 2.5 percent for coal and 3.5 percent for oil.

China's long-term goal of **doubling coal output** to 1.2 billion tons by the year 2000 is **therefore conservative**, given present growth rates, investment levels, and China's rich reserves. China produced 620 million tons of coal in 1980. To double that amount by the year 2000 would have required growth of 3.5 percent a year. Since actual growth has averaged 7.3 percent per annum from 1980 to mid-1985, doubling by 2000 will require annual growth of only 2.4 percent for the next fifteen years.

The combination of China's **high absorptive capacity** for technology transfer and her on-going **managerial and incentive reforms** are the main reasons for general optimism in the face of current energy shortages. This optimism represents a shift from generally held views on China's energy situation in 1980-81.

Short-term efforts to increase coal production will center on continued exploitation by the small, **local mines** which have been responsible for much of the recent growth in output. **Long-term growth** will come from large-scale open pit mines, to be exploited with **foreign technological assistance.** One example is the Occidental-Pingshuo coal joint venture agreement, completion of which augurs well for China's long term prospects of expanding coal production. The mine is to go into full operation in September 1987, with projected annual capacity of 15.3 million tons.

With only **spotty offshore drilling results**, foreign oil companies will press for both better terms and greater access to onshore oil. The Chinese are more likely to grant such access, now that prospects for using offshore oil funds to pay for onshore exploitation have dimmed. Several foreign companies are already engaged in onshore surveying, but on a service contract basis, with eventual production sharing unlikely. Experts say the Chinese are most likely to initially offer only high-risk ventures the possibility of production sharing.

China has better prospects for expansion of the **onshore oil industry**. As with coal, the Chinese object of **doubling output by the year 2000** to 200 million tons per year is probably **conservative.** Output in 1984 was 115 million tons. With output in the first six months of 1985 already 10.1 percent higher than in the first half of 1984, doubling by 2000 requires an annual growth rate of less than 4.0 percent. This should be possible with even poor offshore oil results.

The Chinese plan to quadruple **electric power generation** to 1.2 trillion kilowatt-hours by the year 2000, from 300 million kwh in 1980. By 1990, power output is to reach 550 million kilowatt-hours.

To achieve these levels of power generation will require **higher investment levels** and faster growth rates than attained in the 1980-85 period. According to Chinese projections, power generation targets will require additions to capacity averaging ten million kilowatts per year for the next 15 years. In contrast, power-generating capacity added in the last five years has averaged 3.3 million kwh per year. To reach the goal of quadrupling by 2000, electric power generation must grow at an annual average rate of 7.2 percent, higher than the 6.5 percent average from 1980 through the first half of 1985, but consistent with the higher growth rates of the last several years (see Table 4-7). The

1990 target indicates slower growth from 1986 to 1990 (6.5 percent per year), and then faster growth of 8.1 percent per year until 2000.

According to Chinese projections, **nuclear** plants will provide 5 percent of China's electricity needs by the year 2000, with total generating capacity of 10,000 megawatts. However, the nuclear power industry is not without opponents, so these plans **could be scaled down significantly.** In any case, the Chinese regard nuclear power as a third-priority supplement to the already high levels of investment being made in high power lines for transmitting hydro and thermal electricity from the inland to industrial centers along the coast, and investment in coastal thermal power plants with railroads and ports to supply them with coal.

Of the 10,000 megawatts capacity planned for the year 2000, only 2,000 to 3,000 megawatts will come from **imported technology** and equipment, according to the Ministry of Nuclear Industry. At present, five major projects are in the planning stage, four of which could involve foreign participation.

In spite of the high visibility of nuclear and offshore ventures, the strongest prospects for **technology transfer** are in the onshore oil and coal industries. Chinese demand for mining, drilling, refining, transmission, and other energy-related technologies is growing. For these reasons, China's **coal industry** is becoming **more outward-oriented.** Recent organizational changes at the China National Import & Export Corporation (CNIEC) and China National Coal Development Corporation (CNCDC) are geared to increasing economic and technical cooperation, according to a CNIEC official. In other words, these changes are meant to orient China's coal industry toward more joint energy ventures, technology imports, and coal exports. The dozen or so joint ventures now underway in the coal industry illustrate this outward orientation.

Coal exports **are therefore also a** major part of China's long-term energy development **strategy, and also an important part of the agreements anticipated with foreign investors.** Joint ventures increasingly involve production sharing (9.4 of the 11.9 million tons of washed coal expected to come out of the Occidental-Pingshuo mine is to be exported) and de-regulation in the coal industry. Shanxi province, China's biggest coal producer, has been given the go-ahead to export 600,000 tons of coal in 1985, the first time Shanxi has exported coal directly. Provincial officials have stated that the income from direct coal exports will be spent on equipment and technology imports.

For the near future, because of China's domestic coal needs and the difficulty of transporting coal from the interior to port cities, coal exports will not share the dramatic position in China's balance of payments now held by petroleum. Exports grew only 5.2 percent to 4.83 million tons in 1984, and fell by 2.4 percent in the first half of 1985 over the first half of 1984. This is slower than the growth in output, and substantially less than the growth in petroleum exports. By the middle or late 1990s, however, China could supplant traditional coal suppliers in large markets like Japan.

CHAPTER FIVE - Investment and Capital Construction

EXECUTIVE SUMMARY

TRENDS

- **Investment growth of over 40 percent in the first half of 1985 is accompanying the largest construction boom in China's history. The third quarter has slowed, however.**
- **Decentralized investment decision-making is a major cause of construction boom.**
- **The investment boom has influenced China's import boom, which is heavily concentrated in investment goods.**

POLICY

- **Peking's major efforts are aimed at slowing investment.**
- **Control measures are largely administrative, but efforts to discipline banking point to future use of credit controls.**
- **An investment responsibility system is meant to improve investment quality and timely completion.**

PROBLEMS

- **The overly-ambitious scale of investment has caused critical shortages of materials and general inflation.**
- **High prices for goods with poor market prospects have caused unprofitable and wasteful investment decisions.**

PROSPECTS

- **In spite of an investment slowdown in 1986, China's investment levels will continue to be very high by world standards.**
- **Increasing use of interest rates to control credit will make foreign lenders more competitive, especially if there has been a major devaluation of the yuan.**

TRENDS

Investment plays a central role in the growth of any economy, whether it be Western, Soviet, or East Asian. The current rapid decentralization of China's investment and the extraordinary overall growth of recent investment outlays are major causes of the 1985 industrial boom.

Since 1949, China has had high savings and capital accumulation rates relative to total output. After a temporary dip in the early 1980's, the capital accumulation rate has once again grown to over 30 percent. Although capital accumulation has not been the only source of growth, investment emphasis on the energy, transportation, communications, and education sectors appears to target the most critical bottlenecks in China's current growth process. Investment plans have a strong influence on trade as well. Imports in the first half of 1985 confirm that China is investing heavily in capital goods from abroad rather than importing a majority of consumer durables and foodstuffs.

The most remarkable features of China's recent and current investment patterns, however, are the rapid growth of investment funded by non-state sources, primarily enterprise earnings and bank borrowings, and the growing investment in rural industry. In spite of the importance of rural investment, however, statistics show that the major concentration of new state-budgeted investment is taking place in existing urban industrial centers, pointing to a further concentration of industrial activity there in the future.

The portion of China's available national income used for investment is shown in Table 5-1 below. Such a high rate of investment over at least the last ten years, roughly 30 percent of available national income, typifies the traditionally high accumulation rate. Except for a few years in the early 1980s, investment has always accounted for at least 30 percent of available national income. In 1984, investment again surpassed the 30 percent level and, given the high investment growth in early 1985, the accumulation rate is apparently continuing to rise.

Table 5-1
INVESTMENT AND SOURCES OF GROWTH

	(Billion Yuan)		(Percent)				
	Investment	National Income Available	Savings Rate	Average Capital Productivity	Real NMP Growth	Growth due to Investment	Growth due to Other factors
1975	83.0	245.1	33.9	24.7	8.3	7.9	.4
1976	74.8	242.4	30.9	22.1	-2.7	8.4	-11.1
1977	83.2	257.3	32.3	22.3	7.8	6.8	1.0
1978	108.7	297.5	36.5	23.4	12.3	7.2	5.1
1979	116.1	335.6	34.6	23.1	7.0	8.5	-1.5
1980	116.5	368.6	31.6	22.7	6.4	8.0	-1.6
1981	110.6	388.7	28.5	22.2	4.9	7.2	-2.3
1982	123.6	425.6	29.0	22.7	8.3	6.3	2.0
1983	140.5	473.1	29.7	23.2	9.8	6.6	3.2
1984	171.8	550.6	31.2	24.3	13.9	6.9	7.0

SOURCES: Official data and RCR calculations (J5CBM51t.R5I). All investment figures are in current yuan.

Rapid growth of investment and capital stock is traditionally seen as the secret to rapid industrial growth. This is especially true for centrally planned economies. But for China in 1984, analysis shows that although investment was high, other factors more difficult to measure directly were responsible for more than half of overall output growth. The three columns on the right of Table 5-1, above, give the results of analysis dividing the sources of overall growth between growth of the capital stock and growth in other productive factors, such as labor.

Investment (in current yuan) grew over 22 percent in 1984 compared to 1983 and accelerated to close to 40 percent growth for the first half of 1985. This is considerably faster than the growth of real output as measured by Net Material Product (NMP). Investment, however, is only the addition to capital stock, which grew much less than growth of output, averaging roughly 6.9 percent in 1984. Of the total 13.9 percent NMP growth, then, investment brought about 6.9 percent and other factors a full 7.0 percent. Although some of the 7.0 percent growth contribution of non-capital factors is due to good weather in 1984, much of this "extra" output increase is due to the reforms in both agriculture and industry, which have raised productivity for existing productive assets as well as new ones. This increase in productivity is illustrated in Table 5-1 by the increase in "capital productivity," which indicates the value of output produced for each yuan of capital.

Instead of relying only on investment, China is clearly beginning to tap less predictable sources of growth. For example, many of the industrial reforms are prompting the development of the more labor-intensive light and rural industries and are introducing greater quality control. At the same time, wage and bonus reforms are evoking greater efforts from the existing labor force.

The investment boom in early 1985 is closely linked with both the industrial output increase and the import surge that occurred during the same period. China's first quarter imports were dominated by metals, machinery, and producer goods, which indicate that China is spending foreign exchange for capital goods as opposed to consumer imports. Foreign imports have allowed China to expand and modernize its industrial base and to ease critical bottlenecks, especially in metals.

Table 5-2
STATE CAPITAL CONSTRUCTION INVESTMENT BY SECTOR, 1979-1984

Sector	1979	1980	1981	1982	1983	1984	1984
			(percent growth)				(Bil Yuan)
Total	4.5	6.8	-20.8	25.4	7.0	25.1	74.32
Industry Total	-6.0	7.3	-21.6	20.6	15.3	21.0	34.16
Light Industry	4.4	66.3	-14.8	7.1	-17.9	9.5	4.24
Heavy Industry	-7.2	-.7	-23.2	24.1	22.5	22.8	29.92
Of Which: Energy	-3.4	4.6	-20.7	11.1	24.6	30.1	16.60
Agriculture	8.6	-10.2	-43.9	16.8	25.6	4.7	3.71
Transport, Communication	-5.8	-2.7	-35.1	41.4	45.8	39.0	10.85
Commerce & Foreign Trade	34.5	38.9	-2.0	28.4	-25.3	21.6	3.52
Other Departments	36.1	13.1	-7.9	29.7	-16.2	30.3	22.08
Of Which: Research, Culture, Education, Health	53.7	32.3	-1.5	16.5	-27.7	32.6	7.88

SOURCES: State Statistical Bureau official data. (J5BY51T.T5J)

State budgets for 1984 and 1985 show a renewed emphasis on investment, but the state investment pattern emphasizes heavy industry, transport, and "other" departments, perhaps with military significance. Table 5-2, above, shows the very low level of state investment in agriculture, light industry, and commerce. Investment in heavy industry, which includes investment in the critical energy sector, accounted for 32 of 74 billion yuan invested in 1984, and investment in the transport sector accounted for another 11 billion. Agriculture, by contrast, received only 4.6 billion in 1984 and light industry only 3.5 billion. Under the various industrial and urban reform programs, investment in light industry and agriculture are meant to be largely self-financed from enterprise and household earnings.

So-called "non-productive investment" as a portion of total investment declined from 43 percent in 1981 to 40 percent in 1984 and indications this year are that it will continue to decline as over-ambitious investment is brought under control. Non-productive investment refers to investment in housing, hotels, meeting halls and similar types of buildings that do not yield a measurable output in physical commodities. Construction of these non-productive structures was postponed this year by the Peking and Tianjin governments when the central government called for an overall slowdown of investment.

Table 5-2 above also gives a clear picture of the cyclical ups and downs in overall investment since 1979. Most striking is 1981, when investment contracted throughout the economy. Less recognized is the much smaller investment slow-down in 1983, when light industry, agriculture, and, most significantly, "other" investment all contracted, reducing the overall investment growth rate from 25 percent to 7 percent. The 1983 slowdown is important because it may be a precursor to a similar mini-contraction in 1986, after the 1984-85 investment boom has matured and central authorities have learned to use more indirect credit control mechanisms, in particular, higher interest rates.

The general and more severe investment contraction in 1981 deserves comment because it represents an often misinterpreted phenomenon. Traditionally, Chinese officials have pointed to this "readjustment" as a deliberate policy to restructure the economy. In fact, the very large state budget deficits of 1979-80 forced drastic cutbacks in state expenditures focused primarily on state investment. The budget deficits, far from planned, seem to have resulted from a combination of war expenses related to the 1979 conflict with Vietnam, new heavy food subsidies in 1980, and in general very large investments from the mini-great leap of 1978-79. This same 1981 investment contraction was responsible for the fall in heavy industrial output that same year.

Sources of funding for investment are also undergoing dramatic change. As part of China's effort to make enterprises more efficient and enterprise managers more accountable, banking reforms are shifting the source of investment funds from state budget allocations to bank loans requiring the payment of interest. Enterprises are also now being allowed to use their after-tax retained earnings and depreciation funds to finance their own investments. Such moves will eventually help China to direct its limited investment resources to their most efficient uses.

Table 5-3
STATE AND NON-STATE CAPITAL CONSTRUCTION INVESTMENT IN 1984
(billion yuan)

Type	Total Investment	Allocated in Plan	Out of State Plan
Total Investment:	105.0	69.0	36.0
Annual budget allocation	47.9	31.6	16.3
Out of budget investments	57.1	37.4	19.7

SOURCES: Official State Statistical Bureau data (J5BY64T.T5G).

The shift away from investment financed from the state budget under the state plan is as important as the accelerated growth of investment. This shift is illustrated in Table 5-3, above. Out-of-budget investment funds have become an important source of investment financing, especially in light manufacturing and rural industries. These non-budget investments, however, have also consistently aroused the displeasure of officials responsible for financing the state budget investment program. Non-budget investments use funds which would otherwise end up in state hands to invest in the state program. In the first seven months of 1985, state budget investment was only 8.8 percent higher than it was during the same period of 1984, while "outside" of budget investment increased 90 percent. Furthermore, because of "excessive" investment "outside" the budget, many scarce and expensive materials are increasingly diverted from state to local projects. As a result, the state project completion rate fell from 24.4 percent in the first half of 1984 to 15.6 percent in the first half of 1985.

The chorus of official complaints about runaway non-budget investment was especially loud in mid-1985, pointing again to the possibility of official moves in 1986 to control unwanted capital construction outside the state budget. Peking municipality took the lead in controlling construction investment in July of 1985 by announcing a 30 percent reduction in capital construction expenditures and a revision of construction project priorities.

Technical transformation, unlike new capital construction, has been financed largely from non-budget funds as shown in Table 5-4 below. Furthermore, non-budget investment surges and contractions match the movements of investment in light industry in Table 5-2. Non-budget investment in capital construction grew 37 percent in 1984, when light industrial growth was so pronounced. Various reports for 1985 indicate that non-budget investment is growing even more this year. Given the see-saw pattern of investment emphasis since 1978, alternating between heavy and light industry, and between budget and non-budget sources, it is tempting to anticipate a similar contraction in 1986 non-budget investment in light industry.

Table 5-4
SOURCES OF FUNDS INVESTED IN FIXED ASSETS BY STATE-OWNED UNITS 1978-1984
(billion yuan and percent growth)

	Total Fixed Asset Investment				Capital Construction		Technical Transformation	
Year	Total Fixed Asset Investment	State Budget	Non-State Budget	Non-State as % of Total	State Budget	Non-State Budget	State Budget	Non-State Budget
1978	66.9	44.4	22.5	33.6	41.7	8.4	2.6	14.1
1979	69.9	46.2	23.7	33.9	41.9	10.5	4.4	13.2
1980	74.6	38.2	36.4	48.8	34.9	21.0	3.3	15.4
1981	66.8	28.6	38.1	57.0	25.2	19.1	3.5	19.0
1982	84.5	31.0	53.6	63.4	27.7	27.9	3.3	25.7
1983	95.2	38.7	56.5	59.3	34.6	24.8	4.1	31.7
1984	118.5	-	-	-	40.4	33.9	44.2*	
Growth Rates:								
1979	4.6	4.1	5.5	.9	.3	25.5	64.8	-6.4
1980	6.7	-17.3	53.3	44.0	-16.6	99.8	-24.4	16.5
1981	-10.5	-25.1	4.8	16.8	-28.0	-8.7	5.8	23.2
1982	26.6	8.1	40.6	11.2	10.0	45.7	-5.5	35.4
1983	12.6	24.9	5.5	-6.5	25.0	-10.9	23.9	23.4
1984	24.5	-	-	-	16.8	36.7	23.5*	

*NOTE: These 1984 data are for budget and non-budget combined.
SOURCES: Official State Statistical Bureau data. (J5BY58T.T5G)

A final interesting characteristic of fixed asset investment revealed in Table 5-4 is the consistent and rapid growth of so-called "technical transformation" investments. Technical transformation investments are made to existing plant and equipment. Although modest, they can have a very great influence on the productivity of both existing and newly acquired capital equipment. This important form of investment has been immune to the fluctuations in capital construction. Reforms in the budget process are enhancing its position even more. As of 1985, enterprises are allowed to retain their depreciation funds and apply them directly to technical transformation investments.

Just as China's industrial growth has been highest in advanced industrial centers, state-budgeted investment in fixed assets has tended to concentrate in areas well endowed with such assets. Table 5-5, below, shows that Shanghai and Peking had the largest 1983 investment in fixed assets. Comparing investment to existing net assets shows remarkably high rates in some cities. Guangzhou appears to be adding more than half again as many fixed assets as already exist, a higher rate than Shanghai, Peking or Tianjin. In spite of official efforts to develop China's West and other remote areas, natural economic and geographical advantages will continue to favor already developed areas, particularly on the coast.

Table 5-5
INVESTMENT IN 20 KEY CITIES 1983
(billion yuan)

City	Capital Construction Investment by State	Technical Updating Investment by State	Total Fixed Asset Investment	Net Value Fixed Assets	Investment per Fixed Asset Value (%)
Shanghai	4.3	1.7	6.04	14.61	41.4
Peking	2.6	1.1	3.72	10.52	35.3
Wuhan	.7	.4	1.07	7.43	14.5
Tianjin	2.2	1.1	3.25	7.01	46.3
Chongqing	.7	.4	1.08	6.67	16.2
Anshan	.2	.4	.52	4.63	11.2
Lanzhou	.4	.3	.73	4.42	16.5
Shenyang	.7	.4	1.10	4.28	25.7
Taiyuan	.7	.3	.91	3.79	24.1
Harbin	.6	.3	.93	3.57	26.2
Xian	.6	.3	.89	3.56	25.1
Chengdu	.6	.3	.89	3.55	25.1
Guangzhou	1.0	.8	1.81	3.25	55.8
Nanjing	.6	.2	.83	3.17	26.3
Dalian	.5	.3	.77	2.89	26.6
Fushun	.2	.3	.41	2.69	15.4
Kunming	.4	.2	.64	2.33	27.5
Qingdao	.2	.3	.44	2.06	21.3
Changchun	.4	.1	.51	1.83	27.7
Jinan	.3	.2	.44	1.73	25.4

NOTE: Net Value of Fixed Assets refers to state-owned independent accounting units. All other figures refer to investments of more than 50,000 yuan.
SOURCE: Official State Statistical Bureau data. (J5BY55T.T5G)

As state-budgeted investment continues to favor the already-developed urban areas, non-budget investment funds are increasingly being generated by and invested in the less-developed rural areas. The majority of these non-budget funds are being invested in light industries in rural areas, and village industry is apparently still growing rapidly in 1985. Self-generated investment funds, which are growing much faster than state-budgeted investment funds, have already diverted scarce resources from state-planned projects, and by third-quarter 1985 the central government seems to be taking steps to control them.

POLICY

In addition to maintaining the investment emphasis on energy and transport, official policy in 1985 has focused on controlling the overall rate of investment growth, which is considered to be both an inflationary threat and the cause of critical raw material shortages. Although enhancing investment quality will possibly emerge as a major long-term goal, for the time being official efforts are concentrating on overall control of volume. As one official put it, "Once you get the individuals and enterprises in the saddle, it is hard to get them out." The best long-run solution is a combination of higher prices for critical investment goods and higher interest rates from banks. Even though interest rates were raised slightly this year, Chinese leaders seem unprepared to shift quickly to reliance on such indirect, market-oriented policies. (See Chapter 6, Banking and Finance.)

To slow the high rate of capital construction investment, central and local authorities have instituted various measures, including a construction responsibility system, a nationwide review of the rate of completion of capital construction projects, and the institution of a system of priorities for completion of projects already undertaken. In spite of these efforts, capital construction investment has continued to grow rapidly, and state finance officials have indicated that it may take up to two years to bring the level of investment in line with the growth of the national economy.

The State Council announced in early September that investment in capital construction throughout China will be restricted to the level assigned by the State, without exceptions. Banks were instructed to stop lending for projects not in the State plan and, in a move to control out-of-budget capital construction investment, the State Council also stipulated that self-generated investment funds deposited with the Construction Bank after June 30 could not be used for capital construction projects this year.

Authorities have also announced that certain types of construction now underway will be given priority for completion. Peking municipality has indicated that housing, hospitals, schools, buildings for foreign affairs departments, and joint-venture projects with foreign funds for which contracts have been signed will be targeted for completion first. Construction of office buildings, exhibition halls, and auditoria will be suspended. Tianjin municipality postponed construction of hotels and guest houses that were not urgently needed and will concentrate on completing housing and urban utility projects instead.

A construction and investment responsibility system has been implemented in the State's effort to improve the quality of construction, shorten completion times, and make bankers and managers accountable for the investment in construction. Peking municipality has announced that it will dismiss construction teams that have come from other cities to work on projects in the capital if it is found that the quality of their work is low or inconsistent. Construction bureaus have been told to adopt open bidding systems to cut costs and improve delivery and completion times.

To improve construction project completion rates and to alleviate the shortage of building materials, the State has ordered a nationwide check on the speed of construction. Peking and Tianjin have already reduced municipally-controlled capital investment.

PROBLEMS

As indicated in earlier sections, over-ambitious capital construction investment, due mainly to the great increase in locally-financed or out-of-budget projects, is one of the most serious problems facing China's economic planners this year. The construction boom itself is causing serious problems in other areas of the economy as well. The main cause for concern over growing out-of-budget investment arises from the fact that much of it is undertaken without regard to state economic plans or market demand for the products that will be produced by the new projects. Another problem arises as more enterprises and local authorities undertake expansion and construction projects with the funds they have accumulated for investment; local and out-of-budget projects siphon critical building materials away from state projects. Already scarce resources are spread over a growing number of construction projects and the completion of state-planned projects lags behind schedule. The quality of construction projects has suffered, and construction materials have been wasted.

Local officials do not always investigate the market potential for the products of new factories that they are constructing with self-generated investment funds. A major reason is that prices before 1985 were fixed at high levels for many manufactured goods, reflecting Maoist policy which made them "luxury" goods that were sold to absorb excess purchasing power. These high prices, however, did not result from any large demand for such products, which were and still are often of marginal quality. So, current investment programs inspired by plans for profits from such "luxury" markets have poor prospects and have caused investment funds to be wasted and scarce building materials to be tied up in uncompleted or idle new factories. For example, one study showed that when all refrigerator and automobile manufacturing plants now under construction are completed, capacity will far exceed estimated long-term demand.

PROSPECTS

The prospects for investment in China point to slower investment growth in 1986, although the growth will still be quite high by international standards. It is interesting that this slow-down will be brought about in part through indirect measures, especially higher interest rates, credit restrictions, and price adjustments for critical bottleneck materials as well as for final goods. Sources of investment funds will show two quite separate trends. One trend is resurgent state budget participation in investment funding, concentrating on major bottleneck heavy industrial sectors. The other is a growing sophistication of investment funded by private borrowing and the use of retained earnings. Future investment should lead to growth not only from new productive capacity, but also from the enhanced productivity of existing assets, as more labor-intensive methods and better management make better use of plant and equipment. Finally, the serious shortage of modern technology and quality control suggest a strong and growing role for Western and Japanese capital goods. China appears to be husbanding its scarce foreign exchange for precisely this purpose.

The new 1986-90 five-year plan stresses that a slowdown in economic growth will occur gradually during 1986-87, but strong third-quarter 1985 signs of investment controls probably mean that investment growth in 1986 will be cut back significantly, although not nearly so severely as in 1981. According to the Seventh Five Year Plan, state capital construction investment will remain at about 1985 levels for 1986 and 1987. Given the target of average annual growth of 7 percent through 1990, this implies 12 percent annual growth in state capital construction from 1988 to 1990. Nevertheless, by international standards, China's share of capital accumulation in national income will remain very high at roughly 29 percent. This continued high rate of saving and investment, in turn, will be a major stimulus to overall economic growth.

In the past, fluctuations in non-budget and overall investment have been brought about by relatively direct administrative controls over funds and their use. With the urban industrial and banking reforms in place since 1984, central authorities will have to learn to use more indirect measures, and one of the likely candidates is the interest rate. Higher interest rates for bank loans and deposits will have a dual effect, rationing investment funds to the more profitable projects and attracting enterprise funds for deposit which might otherwise be used for less optimal projects. In addition, higher domestic interest rates will make borrowing from foreign banks a more attractive option for domestic enterprises. In this case, a guarantee of foreign exchange available for repayment will become the deciding factor for many prospective loans. The attractiveness of foreign interest rates, however, will also be affected by movements in China's foreign currency exchange rate.

If Chinese borrowers anticipate devaluations to match China's inflation relative to world price changes, they will see that foreign interest rates are higher than they in fact appear. This is because loans will be denominated in dollars or yen, and a devaluation will require more Chinese yuan for repayment of the same foreign exchange loan. If there is a major devaluation at the same time that domestic interest rates climb, individual enterprises, with their new freedoms to use foreign sources, might gamble that further devaluations are a long way off and start borrowing internationally. The withholding of official guarantees for hard currency repayment to foreign lenders will then become an important credit-control mechanism.

The division of Net Material Product growth into its investment and "other" components in Table 5-1, above, allows speculation about future economic growth. With urban reforms and the roughly 20 percent pace of industrial growth in 1985, and in spite of relatively poor weather for agriculture, non-investment sources of growth in 1985 are likely to decline only slightly. For how many years can China enjoy this boost to its overall growth? Given the large inventory of inefficient capital assets, such "bonus" growth could continue into the 1990's. 1986 will probably see a temporary slowdown across the board; in output, investment, and non-investment productivity growth. After 1986, however, the pattern of sustained growth enhancement from extra capital productivity is likely to resume. If this is the case, per capita income in the intermediate- and long-run could rise much more rapidly than is generally anticipatated.

Since China's initial opening to the West and Japan in the late 1970s, acquisition of foreign technology has been a consistently important part of investment planning. Patterns of imports over the last 12 months have confirmed this bias for capital goods. At the same time, China has shown itself increasingly willing to import capital goods and raw or semi-finished materials to alleviate critical bottlenecks. The vice-director of the State Planning Commission stated in March of this year, at the height of the foreign exchange rundown, that foreign investors will be encouraged to increase the production of goods whose quantities now fall short of domestic demand. China is also seeking foreign cooperation to develop sources of raw materials and to modernize existing plants and equipment. The announcement of production goals for the 1986-1990 five-year plan was followed by a list of cooperative projects to be discussed with foreign firms. For example, non-ferrous metal production is to be doubled in the next five years under the Plan and China will soon be offering cooperative projects in this area to foreign investors.

In sum, China's sustained investment growth is a fundamental part of the overall process of rapid development apparently now under way. The policies and programs now being implemented point to good prospects for both continued long run increases in not only investment levels but also investment quality. In the effort to improve quality, foreign methods, equipment, and materials will play increasingly important roles.

CHAPTER SIX - Banking and Finance

EXECUTIVE SUMMARY

TRENDS
- There has been a fundamental reorganization of the state budget, emphasizing taxation and loans and phasing out profit deliveries and enterprise allocations.
- Despite a planned budget deficit for 1985, half-year results show an unexpected surplus.
- Interest rates and personal savings have risen steadily as a result of major leadership changes at China's top banks.

POLICY
- The source of investment funds has shifted from state budget allocations to bank loans.
- Rapid growth in capital construction investment is being slowed by raising interest rates and establishing reserve requirements.
- Tax revenue is now the major source of budget revenue.

PROBLEMS
- The traditional close relationship between local officials and branch bank leadership is impeding banking reform.
- Local authority over the granting of loans led to an excess number of loans being granted and a waste of investment funds.

PROSPECTS
- The central government has shown that it will use the state budget, and taxes and loans, as tools to drive economic development in the Seventh Five Year Plan.
- China's bank leadership has indicated that financial policies will become more flexible.

TRENDS

China's banking and finance in 1984-85 have undergone major changes that are transforming a static financial system that merely implemented state policy to a dynamic system that is using increasingly more sophisticated financial tools to effect economic reform. In just the past year, there has been a fundamental reorganization of the state budget, a growing budget surplus as opposed to a planned deficit, and widely publicized efforts to discipline enterprise tax evasion. China's top banks have undergone sudden major leadership changes, interest rates have risen, and personal savings have grown rapidly. China's new bankers now permit hard currency personal savings accounts, and have made more than seasonal efforts to absorb excess private currency holdings. In addition, the extraordinary growth in the money supply and loans that began in 1984 is probably the most significant cause of 1985's rapid industrial growth.

The sudden and unexplained replacement of the head of the People's Bank of China, the central bank, with Mme. Chen Muhua in early 1985, supports the interpretation that 1984's very rapid money growth resulted from the spread of incentive and management reforms to the specialized banks and from the influence of local officials in branch bank lending decisions. Mme. Chen has taken a series of steps to strengthen central control over loans and the money supply in order to stem the drain on currency reserves. In the first half of 1985, bank reserves were sapped by a surge in large development loans because some businesses did not reinvest their profits and instead relied on loans to expand production. Mme. Chen also announced several new methods under consideration for continuing the withdrawal of excess currency from circulation.

The central bank's president is pursuing a policy of financial liberalization which emphasizes the regulatory role of banks and interest rates. Interest rates on loans and savings deposits are being raised to slow investment in fixed assets and to absorb more currency. Mme. Chen has also stated that credit loans should be used to control the industrial growth rate which, at close to 20 percent for 1985, is considered too high by economic planners.

The continuing investment in capital construction has been caused, in part, by the fact that the interest rate on loans for fixed asset investments is lower than the rate on loans for circulating funds and savings deposits. The state finance minister reported in late July that the government has still been unable to control runaway construction investment which is overheating the economy. Official sources confirmed high growth figures by reporting in July that urban industries have been averaging 20 percent annual growth while rural industries have been averaging 50 percent annual growth. Loans made by the Agricultural Bank of China to rural industries in the first half of 1985 were 3.2 times higher than loans made in the same period of 1984.

The increase in total savings deposits during the first half of 1985 was 72 percent higher than the increase in total savings during the same period of 1984. The April increase in the interest rate paid by the People's Bank of China on fixed deposits has been cited as one of the causes of the surge in savings; 79 percent of the increased savings in the first six months of 1985 was in the form of fixed deposits. Urban and rural savings deposits of all types increased by 19 percent and 13 percent respectively during the first half of 1985. Interest rates on savings deposits were raised again on August 1.

The Bank of China, the nation's foreign exchange bank, has also reported a sharp increase in savings deposits for 1985. Under an experimental system being implemented at Bank branches in Jiangsu province, hard currency savings deposits may be withdrawn at any time. As a result of this new policy, hard currency saving deposits in Jiangsu at the end of July were more than double the end-1984 figure.

The People's Construction Bank, which is the state agency in charge of funding capital construction projects, has stemmed the unprecedented outflow of bank loans and boosted its deposits and reserves since June. It has succeeded in increasing its deposits by 7 billion yuan and in recalling 1.54 billion yuan of unauthorized loans. It has also helped debtors raise funds to repay loans.

The importation of two billion dollars worth of consumer durables early in 1985 allowed the state to withdraw some excess currency from circulation but contributed to the trade deficit which totaled 4.6 billion dollars for the first half of 1985. Foreign exchange reserves fell almost 3 billion dollars in the first quarter alone.

Tax evasion has been an increasingly more apparent problem. The bonus tax, designed to curb the indiscriminate issuance of bonuses to staff and workers and control the excessive increase in consumption funds, has been difficult for the state to collect. As late as May of 1985, the state was still urging provinces and municipalities to collect and remit taxes on bonuses paid in 1984.

Table 6-1
STATE BUDGET 1977-1985

	(Billion Yuan)			(Percent Growth)	
Year	Revenue	Expenditure	Surplus or Deficit(-)	Revenue	Expenditure
1977	87.45	84.35	3.10	n/a	n/a
1978	112.11	111.09	1.02	28.2	31.7
1979	110.33	127.39	-17.06	-1.6	14.7
1980	108.52	121.27	-12.75	-1.6	-4.8
1981	108.95	111.50	-2.55	.4	-8.1
1982	112.40	115.33	-2.93	3.2	3.4
1983	124.90	129.25	-4.35	11.1	12.1
1984	146.50	151.50	-5.00	17.3	17.2
1985 *	153.50	156.50	-3.00	4.8	3.3
1985 (Jan-Jun)	81.36	69.76	11.60	25.9	15.0

*NOTE: The 1985 annual data are from the 1985 draft budget.
SOURCES: Official data from the State Statistical Bureau, communiques, and Ministry of Finance official speeches. (J5BQ01)

State budget data for 1984 and the draft budget for 1985 show a rapid shift toward tax revenues and a renewed importance of state-budgeted investment. The growth of the 1984 budget was particularly impressive. The more than 17 percent increase in overall expenditures in 1984, following double-digit growth in 1983, resembles very much the rapid acceleration of expenditures in the "mini-Great Leap" of the late 1970s, which resulted in serious deficits, drastic fiscal retrenchment, and even contraction in heavy industrial output.

Table 6-1 above, however, shows that the 1979-1981 crisis years were very different from the current fiscal path. By 1979, revenues actually had fallen, opening a large deficit. Revenues continued to deteriorate in 1980 as outlays contracted, and the state was forced into the drastic retrenchment it camouflaged as a policy of deliberate "Readjustment." Since 1983 the situation has changed dramatically. Revenue growth has kept pace with expenditures, and in the first six months of 1985 the budget was actually in surplus. There is still cause for worry that 1985's industrial output burst might leave commercial departments with losses from stockpiles of unsalable goods, but conditions in 1985 are still very different from those of 1979, and the 1985 pace to date shows no reason for concern.

The very rapid money supply increase in the second half of 1984 was one of the major contributors to China's explosive industrial growth (21 percent through September) in 1985. Rather than being the result of a simple policy slip-up as reported by Premier Zhao Ziyang this spring, the very rapid money growth seems to have resulted from the spread of incentive and management reforms to the specialized banks and from the hold-over influence of local (county and town) officials over branch bank lending decisions. Corrective measures require rethinking and further refining of China's banks and new banking policies.

Table 6-2
1985 MONTHLY INDUSTRIAL GROWTH

	January	February	March	April	May	June	July	August
Percent Growth*	24.5	21.3	23.0	24.1	22.8	22.7	20.8	17.4

* NOTE: Growth is measured relative to the same month in the previous year.
SOURCES: Official State Statistical Bureau data. See Chapter 3, Industry, for details.

Although many factors share responsibility for the extraordinary industrial growth shown in Table 6-2 above, sudden expansion of the money supply is probably the most significant. From November 1984 to September 1985, China's industrial output increased by from 17 to 25 percent every month, over the same month in the previous year. During this same period, China's money supply grew rapidly, with 55 percent growth in 1984 and 54 percent growth in the first half of 1985, as shown in Table 6-5 below.

The rapid rate of money supply growth for 1984 and the first half of 1985, shared evenly between currency and enterprise deposits, is a significant acceleration from the 19 percent growth in 1983 and the 8 percent growth of 1982. It is more reminiscent of the roughly 25 percent rates of money growth in 1979-80, the years of China's most severe budget deficits. 1984's growth however, is not the result of government borrowing to cover a deficit. Rather, it represents a very rapid increase in bank lending to enterprises. This difference in the source of money supply increases may help explain why they have resulted in real growth and not serious inflation. Data on annual increases in China's money supply are given in Table 6-3 below.

Table 6-3
MONEY SUPPLY GROWTH 1977-1985

Year	(Billion Yuan) Total Money Supply	Of Which: Currency	Currency Share (percent)	(Percent Growth) Money Supply	Currency
1977	58.01	19.54	33.7	n/a	n/a
1978	58.04	21.20	36.5	.1	8.5
1979	73.66	26.77	36.3	26.9	26.3
1980	91.93	34.62	37.7	24.8	29.3
1981	107.04	39.63	37.0	16.4	14.5
1982	115.70	43.91	38.0	8.1	10.8
1983	137.05	52.98	38.7	18.5	20.7
1984	212.59	79.21	37.3	55.1	49.5
1985*	201.24	75.75	37.6	53.6	54.3

SOURCES: 1977-84, official data (J5BQ03.T5J). 1985 data for first six months only.

The causes and progress of 1984's money supply increases are particularly difficult to gauge because of the seasonality of Chinese monetary flows. In general, growth of loans and money supply is very low and even negative in the first half of the year, with all of the year's growth coming in the second half, and in some cases all in the fourth quarter. This is perhaps best illustrated by 1982 data on the growth of total bank loans by quarter, shown in Table 6-4 below.

Table 6-4
SEASONALITY IN TOTAL LOANS, 1982

	IV'81	I'82	II'82	III'82	IV'82
Loans (Billion Yuan)	277	266	268	277	305
(Percent Over Previous Quarter)	n/a	-3.7	.7	3.2	10.3

SOURCES: Official data, People's Bank of China.

In 1982, which in many ways was as "normal" a year as there has been in the past five to choose from, the total of loans outstanding only recovered to the level of the previous year by the third quarter. That is, there was no growth from the end of the fourth quarter 1981 to the end of the third quarter 1982. All of the growth in loans outstanding for 1982 occurred in the fourth quarter: October, November and December. In his March speech before the Party Congress, Premier Zhao complained that 48 percent of the 1984 loan increase occurred in December. But when we consider the seasonality illustrated above, and remember how important December is for meeting quotas and concluding state procurements,

Table 6-5
QUARTERLY MONEY SUPPLY 1981-1985

Year/Qtr		Amount (Billion Yuan)			Growth Over Previous Quarter (Percent)		Growth Over Same Quarter, Previous Year (Percent)	
		Total Money Supply	Of Which: Currency	Currency Share (percent)	Total Money Supply	Of Which: Currency	Total Money Supply	Of Which: Currency
1980	IV	91.93	34.62	37.7	n/a	n/a	n/a	n/a
1981	I	88.31	32.56	36.9	-3.9	-6.0	n/a	n/a
	II	86.83	30.64	35.3	-1.7	-5.9	n/a	n/a
	III	92.12	33.32	36.2	6.1	8.7	n/a	n/a
	IV	107.04	39.63	37.0	16.2	18.9	16.4	14.5
1982	I	102.14	37.79	37.0	-4.6	-4.6	15.7	16.1
	II	97.56	35.25	36.1	-4.5	-6.7	12.4	15.0
	III	102.95	37.74	36.7	5.5	7.1	11.8	13.3
	IV	115.70	43.91	38.0	12.4	16.3	8.1	10.8
1983	I	113.13	43.33	38.3	-2.2	-1.3	10.8	14.7
	II	113.52	42.20	37.2	.3	-2.6	16.4	19.7
	III	119.73	46.73	39.0	5.5	10.7	16.3	23.8
	IV	137.05	52.98	38.7	14.5	13.4	18.5	20.7
1984	I	132.82	51.12	38.5	-3.1	-3.5	17.4	18.0
	II	131.01	49.10	37.5	-1.4	-4.0	15.4	16.4
	III	152.10	58.72	38.6	16.1	19.6	27.0	25.7
	IV	212.59	79.21	37.3	39.8	34.9	55.1	49.5
1985	I	216.96	78.76	36.3	2.1	-.6	63.3	54.1
	II	201.24	75.75	37.6	-7.2	-3.8	53.6	54.3

* SOURCES: 1977-1985, official data. (J5BV05S.B5F, J5BQ05.T5J)

48 percent may not be very far out of the ordinary at all, even if it is a little high. It certainly is not as high as it was made out to sound in Zhao's speech, where no mention at all was made of seasonality. The importance of seasonality is further illustrated by quarterly data on the money supply, which go back to 1981 and are presented in Table 6-5 above.

The money supply growth rates in columns 4 and 5 of Table 6-5 are calculated over the previous quarter and show that in virtually every year the money supply falls in the first two quarters, grows moderately in the third quarter, and then grows very fast in the fourth quarter, only to fall back again in the first quarter of the following year as the pattern begins again. The pattern is even more exaggerated for the currency portion of the money supply. On a quarter-to-quarter basis, then, there is nothing strange about most of the money supply growth coming in the second half of the year, as reported by Zhao.

The important aspect of Table 6-5, however, is the data for the third quarter of 1984, when the pattern of moderate growth was broken. On a quarter-to-quarter basis, the money supply grew 16 percent instead of the usual 5 or 6 percent. On an annual basis, money growth was 27 percent, rather than the 11-18 percent of the previous several years. This, then, is when China's "overheated" money supply growth really began, in the third quarter of 1984, not at the end of the year, and certainly not as late as December. It is not surprising that monthly output data also show acceleration in industrial growth beginning in July of 1984, coinciding with the increase in the money supply. (For details of China's monthly industrial growth, see Chapter 3, Industry.)

POLICY

Reforming China's financial system encompasses changing investment financing methods and restructuring the state budget. To make better use of China's investment funds and material resources, banks are establishing interest rates, reserve requirements, and borrower qualification measures that will slow the rapid growth of loans and better direct resources to their most productive uses. In addition, the central bank is establishing overall monetary targets that will curb excessive investment and absorb excess currency. State fiscal policy is changing as the 1985 draft budget emphasizes enterprise tax revenue and investment expenditure. During the Seventh Five Year Plan, the state budget will once again function as a catalyst that will drive economic development.

China's method of financing investment and enterprise operations is shifting from state grants to bank loans bearing interest. The old People's Bank of China was largely responsible for disbursing state funds and collecting enterprise revenues. There was little, if any, judgement required, there was nothing equivalent to serious project or loan evaluation, and the influence of local economic and political leaders was very strong. With the reform of banking institutions and goals, the old influence of local forces seems to have remained, resulting in 1984 loans serving local interests rather than overall national monetary targets. This balance of power seems now to be shifting in favor of central control.

Chen Muhua has recently stressed that the People's Bank will set currency targets and credit quotas for other financial institutions and regions in an effort to curb the excessive construction investment that threatens to overheat the economy. The Bank will raise interest rates by up to 3 percentage points on loans for fixed asset investment to be undertaken in urban areas and on loans to rural enterprises for the purchase of production equipment. Stricter control will be placed on loans to urban industries and commercial businesses. Significant reserves will be held by the central bank to prevent the unauthorized issuing of loans by the specialized banks and local bank branches. The People's Bank will limit loans to enterprises with poor economic justification while encouraging those which could earn foreign exchange, and it will not lend to enterprises which spend profits and rely on bank aid for operating capital. The Bank will also cease lending to rural industries while continuing to lend in rural areas for the production and purchase of farm produce to be marketed commercially, refuse to approve loans for investment outside the state plan or beyond state quotas, cut expenditures for sending delegations abroad, and limit payroll increases until the 1985 wage reform is in place. The People's Bank will also ensure that loans from rural credit cooperatives to rural businesses will be granted according to state economic plans.

These more general policies have accompanied various steps to absorb the 1984 money supply increases: large imports of consumer goods have been allowed, stockpiled gold has been sold to jewelers, savings account interest rates were raised twice in the first six months of 1985 advance orders and payments for expensive out-of-stock items have been accepted, and increased production of light manufactures has been encouraged. These efforts have been by and large successful. To prevent another currency surge during the last four months of 1985 when the majority of agricultural payments are made, the People's Bank has instructed agricultural banks to reduce cash payments to farmers by substituting bank transfer checks and bank drafts that supply and marketing departments will then be obliged to accept.

The People's Bank has also indicated that the payment of wages and bonuses will be brought under stricter supervision and control. When it was announced in late 1984 that 1985 wage increases would be tied to the 1984 wage level, enterprises rushed to raise wages and issue bonuses toward the end of 1984. Their actions led to the issuance of excess currency which is still being absorbed in the second half of 1985. To prevent another unauthorized issuance of wages and bonuses, the People's Bank now requires every business to open special payroll accounts so that the payment of wages can be monitored. This new wage payment system will also allow the Bank to control bonus payments and to determine bonus tax liabilities.

Chen Muhua and other officials have been careful to emphasize that they are ready to be flexible in the application of their new principles, and that above all, interest rates and bank lending should become the main levers for influencing investment and production plans.

The People's Construction Bank of China has also tightened control over loans for capital construction as part of the nation's effort to rein in the expansion of credit and currency that began in the second half of 1984. In an effort to reverse the run on reserves that resulted from a record increase in loans, the Construction Bank, in May, began to tighten control of credit and to encourage its clients to save. The head office has launched a nationwide inspection of banking methods, to be undertaken during the last five months of 1985. The Construction Bank will severely punish those responsible for any irregularities in the granting of bank loans or for other violations of financial discipline.

Provincial and local banks are examining lending practices in order to prevent unauthorized loans and usury. The Hunan provincial agricultural bank decided in June to limit monthly interest rates on loans to agricultural cooperatives and households in difficulty. This action was taken in response to reports that monthly interest rates had reached 15 percent and that such high rates were harming the peasants. The monthly interest rate on loans to agricultural collectives for commodity production, floating capital, purchases of high-grade consumer goods, and building materials must now be between 0.6 percent and 0.96 percent. The monthly interest rate on loans to households in difficulty for the purchase of grain rations has been fixed at 0.66 percent.

The Ministry of Finance published its draft budget for 1985 in March and a superficial study shows it to be extremely conservative. In fact, however, definitional shifts within budget categories make simple comparisons impossible. Using definitions comparable to those for 1984, the growth in revenues and expenditures is much higher than it seems, although still somewhat low. As shown in Table 6-1 above, the 1985 draft budget calls for a mere 5 percent growth in revenues and 3 percent growth in expenditures. This seems unrealistically low when compared to the 17 percent increase in 1984 and the growth so far in 1985. Actual growth in revenues and outlays in the first half of 1985 has been 26 percent and 15 percent, respectively, over the first half of 1984. Nevertheless, the state finance minister announced in his July report that China has to strictly control expenditures in an effort to eliminate the planned 1985 budget deficit of 3 billion yuan by the end of the year.

The 1984 and 1985 budgets represent such a rapid restructuring that comparison of the two years is difficult. The most dramatic changes result from the implementation of Phase Two of China's tax and enterprise management reforms, effective October 1, 1984. With Phase Two, virtually all direct payment of revenues to the state is ended and replaced with a profit tax. What were revenue remittances are now to be tax remittances. The losses subsidized by the state budget remain, however, and are no longer hidden within a net revenue total.

One important change, which especially camouflages 1985 budget growth, ends enterprise remittance of depreciation charges to the state. Enterprises can now retain these funds for their own use. To counterbalance this shift, state budget expenditures for renovating enterprises and upgrading their technologies are to be cut by half. The same projects are now to be financed by the enterprises themselves with the moneys they save by keeping the depreciation charges. In other words, formal revenues and expenditures have both been reduced, but the effect on the enterprise is neutral.

Shifts and redefinitions such as these contribute to the appearance of unrealistically slow budget growth planned for 1985. The Ministry of Finance calculates that if there were no definitional changes, revenue growth would be 10 percent rather than 5 percent. Even 10 percent, however, is low compared to 17 percent in 1984 and the 26 percent revenue growth reported for in the first half of 1985.

PROBLEMS

The rapid expansion of credit used to finance too much investment in capital construction, excess currency still in circulation, low bank reserves, a possible build-up of unsalable inventories requiring huge enterprise subsidies, and tax evasion are problems that the financial authorities were still facing in the first half of 1985. The major underlying problem, however, is the close traditional relationship between local bank leadership and other local economic authorities in various locations. This power relationship was, in part, responsible for the recent rapid growth in loans and it is also the main target of the banking reforms under Chen Muhua. Because this local, decentralized authority over loan discipline is, in reality, not much discipline at all, it is perhaps the main problem facing the reformers and the central bank leadership.

The state finance minister indicated in July that the problem of runaway capital construction investment, especially that undertaken by non-state sources, is one that will have to be solved during the second half of 1985. He also stated that the government had been unable to control the excessive increases in capital construction investment and consumption funds that began late in 1984 and continued unabated for the first half of 1985. The 1984 winter credit and currency boom, which tended to upset the domestic market, has been attributed to the arbitrary granting of large loans by the specialized banks. Loans for construction increased by about 130 percent in 1984. Over 27,400 capital construction projects were started in the first four months of 1985 alone, signaling the largest construction boom in 35 years. Total investment in capital construction by state-owned industries and government departments reached 14.2 billion yuan from January to April, representing a 36 percent increase over the same period in 1984. However, of all investment during that period, 30 percent was financed by individual and other sources.

The continued arbitrary granting of loans for investment since January has drained bank reserves. Higher wages and bonuses paid by the state have also contributed to the depletion. Even though central authorities insisted that bank reserves be increased, the People's Construction Bank reported that most of its provincial branches did not meet their targets for boosting reserves during the first half of 1985 because local construction units increased their demands for loans.

Although state budget trends in 1984 and early data for 1985 are very promising, there are three possible sources of difficulty for the 1985 budget. The first is collusion between local officials and local enterprises to avoid payment of taxes which would result in reduced state revenue. The second is a repeat of the unsalable inventory build-ups of 1979, which would result in losses to commercial enterprises and a consequent sharp reduction in revenues. The third is the uncertainty about the seasonality of budget outlays. The government is still giving assurances that it will purchase crop production even if this autumn's rural output is very large. This could require increased outlays this fall which could, in turn, create a small budget deficit for 1985. A deficit, however, would not necessarily be a very serious problem because China has dealt with slight deficits for many years. Although seasonality may account for the overall surplus in the first half of 1985, it cannot account for the 25.9 percent revenue increase over the same period in 1984. Nevertheless, if there is a concern about the 1985 budget, with all its changes and promise, it is the threat of unsalable inventories and unrecoverable commercial enterprise losses.

There are numerous accounts of serious tax evasion in China, many resulting from the close relationship between local political leaders and the heads of industrial enterprises. Enterprises have been falsely put in a lower enterprise category to avoid higher taxes, and in the most extreme case, some provinces have refused to remit some new taxes, such as the bonus tax. Sichuan, whose population of 100 million people makes it China's most populous province, is one example of such refusal. The next two most populous provinces, Henan and Shandong, both remitted substantially less bonus tax per capita than the national average. Loopholes in tax collection methods are also part of the tax evasion problem. In Hebei province, unpaid taxes totaled over 200 million yuan from 1980 to 1984. Provincial officials have stated that tax evasion has affected state revenue, hindered the modernization program, and corrupted Party style and cadres. Although problems of tax evasion are common in the Chinese press, so are reports of success in correcting abuses. The importance of the issue is probably greater as a sign of tension between Peking and localities than as a serious immediate cause of revenue failure.

Revenue failure could be much more precipitous if the current industrial expansion turns out to be based on production and procurement of large amounts of unsalable items. Just as for agriculture, where relative peasant autonomy coupled with guaranteed state procurement at high prices resulted in a serious surplus of coarse grains, so in industry, the combination of increased enterprise independence and guaranteed state procurement could result in very large stockpiles of poor quality industrial products held by state commercial units. With outlays but no corresponding revenues, these units would suffer directly. So far in 1985 there is no sign that this is the case.

It is not likely that 1985's government agricultural obligations will cause a budget deficit even though the state is guaranteeing that it will purchase crop production. Another year of bumper crops is unlikely because weather conditions in 1985 do not seem to have been as favorable as 1984's. The new contract purchase system in agriculture has helped limit government obligations because it caps the price that the state will pay for products delivered over the contractual agreement and it allows much of the surplus output to be sold in private markets as long as the price does not fall precipitously.

PROSPECTS

China's authorities are strengthening their control over banking practices and are using the revamped state budget as a catalyst to drive economic development in the seventh five-year plan. Increased state revenue will be used for investment in state projects, and interest rates and reserve requirements will be used to govern investment in non-state projects. Official fiscal and financial policy will be flexible in the face of seasonal monetary flows and with such rapid changes as price and enterprise management reforms. At the same time, the overall fiscal and financial system will become increasingly decentralized in other ways as the state relies on interest rates and taxes to support enterprise autonomy and to direct investment according to State economic plans.

At the same time that reforms are decentralizing many economic decisions in China, the central government is reasserting the state budget's traditionally strong influence over the economy's development program. Statistical results for 1984 and early 1985 show that China's state budget, bolstered by the revenue-earning power of new state taxes, has reassumed its catalytic influence on investment and industrial growth. These rapidly increased outlays, together with rapid surges in the money supply, seem to have converted managerial reforms into 1985's extremely fast growth.

The strong seasonality that exists in the money supply and in lending patterns because both are keyed to agricultural purchases could weaken as the importance of the new purchase quota system grows. Under the new system, the price the government pays for above-quota agricultural output is capped and therefore the seasonal outlay for such purchases is limited. However, seasonality in expenditures will continue to be of importance due to industrial purchases which surge in plan fulfillment months.

The new draft budget confirms that 1985 is to be a year of continued radical change in state revenues. The shift to taxation will virtually eliminate enterprise profit transfers to the state, while leaving a large negative revenue item for state subsidies to ailing industries. Because of shifting definitions, the draft budget is not as conservative as it seems, but its expansion is still very slow in the context of actual results in 1984 and 1985. The state budget surplus in the first six months of 1985 was the highest recorded in recent years as revenues exceeded expenditures by 11.6 billion yuan. Annual growth in both revenues and expenditures was planned to be less than 5 percent but revenues during the first six months of 1985 were 26 percent higher than in the same period in 1984 and expenditures were 15 percent higher. For the years 1986 to 1990, the state has set a total revenue target of 900 billion yuan, which requires an average annual increase in revenues of only 1.9 percent. Given the double digit growth experienced from 1983 through the first half of 1985, the revenue target appears conservative, even with budget redefinitions. Even though the budgetary goal announced this summer by the state finance minister called for restraining expenditures during the second half of 1985, the finance minister also indicated that more funds would be allocated in 1985 to ensure the reform of the wage and price systems.

Enterprise subsidies are currently reported as negative state revenue. If China succeeds in carrying out the anticipated tax and profit remittance reforms, revenue sources will be painfully visible to policy-makers and policy critics alike. The subsidies may then be reported as expenditures to reflect their true nature in the state budget.

To encourage exports, the State is likely to soon shift some of the tax burden from enterprises to domestic consumers. By reducing or eliminating the enterprise profit tax and imposing an excise tax on high-priced consumer goods or luxury items while at the same time lowering industrial prices, enterprises will find it in their best interests to export. Increased exports will help to offset the current high demand for expensive imports which has resulted in a trade deficit of 4.6 billion dollars in the first half of 1985. Demand for imports will continue to be high as world prices fall and Chinese prices rise. As a result, there will be pressure for further devaluation of the Chinese yuan, which could push the exchange rate as high as 3.5 or 4 yuan per dollar by mid-1986.

Money supply growth will continue to exceed real output growth. As commercialization and the incidence of money transactions spread to more and more areas of economic activity, more money will be needed for the same level of real economic output. By all accounts, because of the increasingly specialized peasant operations and more independent industrial enterprise management in particular, China's economy is commercializing rapidly. To ensure steady growth of the money supply, the state will regain tight control by establishing reserve requirements. Banking practices are being examined in an attempt to curb excessive currency growth.

Inflation caused by the rapid money supply increase will be held in check by government price-monitoring bureaucracy, increased production and importation of goods, and the monetarization of more aspects of China's economy. Some inflation may be desirable because it could be an effective way of changing relative prices during the price reforms. Correcting China's irrational price system requires changing relative prices. This can be accomplished by raising some prices, reducing others, or by a combination of price increases and decreases. Politically and administratively, it is easier to make some prices rise than to get others to fall. As a result, there will probably need to be many more price increases than decreases, resulting in overall inflation and requiring liquidity in the form of an increased money supply to finance the process. The relatively large money supply increases in 1984 and 1985 may indeed serve a valuable purpose.

CHAPTER SEVEN - Trade and Payments

EXECUTIVE SUMMARY

TRENDS

* After three years of trade surpluses and reserve accumulation, China's 1984-85 imports surged while exports stagnated.
* By the end of August, China's 1985 trade deficit was 6.3 billion dollars, due to more than 50 percent growth in imports.
* The import surge is concentrated in investment goods and is closely related to the introduction of urban reforms.
* The deficit with Japan is three-fourths of the total deficit and is concentrated in markets with strong prospects.
* Foreign reserves fell 3 billion dollars in the first quarter of 1985, but less than a half billion in the second.

POLICY

* By March 1985 China cut consumer imports dramatically, but vowed to honor all investment good import contracts.
* To deal with sagging exports, China has begun a gradual devaluation of the yuan and recentralized some controls.
* China's overall strategy is to use its limited foreign reserves to import technology and critically short materials.

PROBLEMS

* China's major trade problem is one of internal discipline as managerial decentralization and price responsiveness spread.
* High "luxury" pricing for domestic manufactures and an overvalued currency have made exporting unattractive.

PROSPECTS

* The current devaluation will continue until the yuan is 3.5 or 4.0 to the dollar some time in 1986.
* After a swing to control imports in 1985-86, China will borrow only modestly, constraining imports with export earnings.

Table 7-1
CHINA'S FOB TRADE BALANCE, 1975-1985
(Billion US $)

	Exports FOB	Imports CIF	Balance	Exports FOB	Imports FOB	Balance
1975	7.26	7.49	-.23	7.26	6.67	.59
1976	6.86	6.58	.28	6.86	5.86	1.00
1977	7.59	7.21	.38	7.59	6.34	1.25
1978	9.75	10.89	-1.14	9.75	9.58	.17
1979	13.66	15.67	-2.01	13.66	13.95	-.29
1980	18.10	19.94	-1.85	18.10	17.75	.35
1981	22.01	22.01	-.01	22.01	19.37	2.63
1982	21.13	19.29	1.83	21.13	16.88	4.25
1983	20.71	21.39	-.68	20.71	18.72	1.99
1984	23.91	26.74	-3.77	23.91	23.89	.01
1985*	16.44	25.30	-8.86	16.44	22.77	-6.33

* NOTE: 1985 is for the first 8 months only.
SOURCES: 1975-1980 from Ministry of Foreign Trade, 1980-1982 and 1985 on Official Chinese customs basis, 1982-1984 on official payments basis. (J5AI01.D5J)

TRENDS

As a result of the open-door policy following Mao's death, China's foreign trade turnover nearly quadrupled between 1975 and 1984 and is growing even more rapidly in 1985. China's self-imposed commercial isolation is apparently over. The trade pattern during this period of rapid growth has not been even. The trade balances in Table 7-1 show a deficit in 1979, strong surpluses in 1982-83, and the reappearance of a deficit in 1985. The more recent trade deficit is the result of rapidly growing imports of investment goods while exports in general have stagnated. The import boom beginning in late 1984 has mostly benefitted Japan, which, in addition to substantial steel exports to China, has out-competed the United States and West Germany for China's large and growing purchases of machinery, electronic equipment and vehicles. Trade developments are also closely related to China's foreign exchange system. 1985 has already had both a dramatic fall in foreign exchange reserves in the first quarter and China's first currency devaluation in five years in the third quarter. In addition some reports indicate that borrowing was also high in the first half of 1985.

Table 7-2
CHINA'S BALANCE OF PAYMENTS, 1980-85
(Million US $)

	1980	1981	1982	1983	1984	1985 I-II
CURRENT ACCOUNT						
Commodity Trade Exports	18099	22007	21125	20707	23905	11990
Commodity Trade Imports (-)	-17750	-19372	-16876	-18717	-23891	-16560
Commodity Trade Balance	349	2635	4249	1990	14	-4570
Services Income	2409	3130	3604	4028	4819	
Services Expenses (-)	-2703	-3333	-2665	-2289	-3245	
Total Net Services	-294	-203	939	1739	1574	
Net Private Transfer Receipts	640	464	530	436	305	
Net Government Transfer Receipts	-70	108	-44	75	137	
Total Net Transfer Receipts	570	572	486	511	442	
Invisibles Receipts (Net)	276	369	1425	2250	2016	1000
Current Account Balance	625	3004	5674	4240	2030	-3570
CAPITAL ACCOUNT						
Long-term Lending	956	1736	2923	2653	4241	
Long-term Borrowing (-)	-2716	-1987	-3312	-2702	-4128	
Long-Term Lending (Net)	-1760	-251	-389	-49	113	
Short-term Lending	236	1190	295	334	1113	
Short-term Borrowing (-)	-312	-231	-244	-59	-223	
Short-term Lending (Net)	-76	959	51	275	890	
Total Lending (Net)	-1836	708	-338	226	1003	-2
Increase in Reserves	108	2511	6291	3648	95	-3568
Capital Account Balance	-1728	3219	5953	3874	1098	-3570
Errors and Ommissions	2353	-215	-279	366	932	0
FOREIGN EXCHANGE RESERVES	1875	4386	10677	14325	14420	10852

* NOTE: Foreign Exchange Reserves prior to 1984 are calculated backwards based on official change in reserves published for 1982-1984.

SOURCES: Official data, (1982-1984), IMF estimates, RCR estimates. (J5BX06a.D5k)

The periods of commodity trade surplus in the early 1980s helped China build foreign exchange reserves up to a level of 14.4 billion dollars by the end of 1984. The fall in first quarter 1985 brought them to 11.3 billion dollars, roughly the same very strong level of 1982-83. But the internal distribution of the reserves, with more in provincial hands, could explain reports of severe foreign exchange shortages in Peking. When foreign exchange reserves were quite high, as in 1983 and 1984, import policy was relatively open, and foreign exchange flowed more freely. Now that the supply of foreign exchange is more taut, the trend is towards more restricted access to foreign exchange and the re-establishment of central control over reserves. For details on China's balance of payments see Table 7-2. The reserve level stabilized in the second quarter of 1985, falling only 400 million dollars, to 10.85 billion, after falling 3 billion in the first quarter. However, the reserves held by the state fell approximately 2 billion dollars in the second quarter and constituted less than one-half of the nation's reserves at the end of June, at 5.37 billion dollars.

Historical data at the SITC 1-digit level of aggregation in Table 7-3 indicate the major long-term trends in the makeup of China's growing commodity trade. The temporary increases of food and raw materials in 1980-81, (categories 1 and 3,) were associated with the increased need for grain and cotton due to the very bad drought and flood conditions in China at that time. In contrast to the short term fluctuations, exports of mineral fuels and light manufactures, primarily crude oil and apparel, have grown consistently throughout the period, while imports of chemicals, metals and especially machinery have increased rapidly.

Table 7-3
ANNUAL TRADE BALANCE BY SITC ONE DIGIT TRADE CATEGORIES
(Million Current Dollars)

	(0) Food and Animals	(1) Beverages & Tobacco	(2) Crude Materials	(3) Mineral Fuels	(4) Animal Vegetable Fats	(5) Chemicals	(6) Materials and Metals	(7) Machinery & Transport	(8) Light Manufactures	(9) Other Commodities	Total
1975	784	59	-13	1,035	10	-339	-965	-1,605	799	3	-230
1976	813	60	127	872	11	-228	-680	-1,560	848	20	280
1977	316	59	-189	1,076	-106	-441	-678	-735	1,088	-10	380
1978	362	57	-401	1,399	-60	-600	-1,759	-1,441	1,310	-8	-1,140
1979	113	63	-511	2,593	-106	-511	-1,827	-3,496	1,727	-55	-2,010
1980	-537	35	-1,784	4,272	-106	-514	-552	-4,503	2,500	-91	-1,280
1981	-685	-148	-2,056	5,012	-13	-1,260	622	-4,693	3,086	-20	-155
1982	-1,354	-36	-1,395	5,029	-32	-1,760	322	-1,944	3,142	602	2,573
1983	-275	57	-572	4,355	34	-1,934	-1,940	-2,772	3,009	616	579
1984	891	-13	-159	5,626	60	-2,782	-2,263	-5,807	3,338	-611	-1,720

NOTE: Because of the lack of conversion standards at 1-digit SITC levels, imports in this table are CIF.

SOURCES: 1975-1980 data from RCR Trade Databank, Corrected from partner country data in CIA "International Trade Statistics," various editions. 1981-1984 balances from Chinese "Customs Statistics" (J5AI35.D5J).

Switching from annual to quarterly data, the major recent development is the deficit in commodity trade. Overall, China's first-half FOB deficit was 4.6 billion dollars, in spite of the near-recovery of exports after their first quarter dip. As for all of 1984, data for the first quarter of 1985 show that trade was dominated by oil and steel. The deficit with Japan accounts for a full three-quarters of the total deficit, and within Japan's trade, machinery and equipment again account for more than the total shortfall. China's net imports from Japan far overshadow those from the United States. Furthermore, because they are concentrated in investment goods such as electrical machinery, vehicles and telecommunications, Japan's China-bound exports are expected to enjoy contiued growth.

Official trade statistics for the first half of 1985 reveal the rapid growth in China's trade deficit over the last three quarters. Revised data for the first half of 1985, in Table 7-4 below, emphasize the difference between first- and second-quarter deficits. The first quarter deficit was due more to weakening exports than growth in imports over end 1984. This led observers to believe that China was tightening control over imports after unruly late 1984 growth. However, as Table 7-4 clearly shows, the even larger trade deficit in second quarter 1985 is due solely to import growth of over a billion and a half dollars, while exports actually recovered. When imports held steady in the first quarter of 1985, rather than falling to match the usual first quarter dip in exports, and grew another 16 percent from first to second quarter, the result was a 6-month trade deficit of almost 4.6 billion dollars. China's quarterly trade pattern in Table 7-4, below, shows imports in both the official CIF form and the more accurate FOB form for balance of payments. (CIF imports double-count invisibles such as shipping and insurance, much of which China pays to itself.)

Table 7-4
QUARTERLY TRADE BALANCE, 1981-1985'II
(Billion US $)

		Dollar Exports FOB	Dollar Imports CIF	FOB-CIF Trade Balance	Dollar Exports FOB	Dollar Imports FOB	FOB-FOB Trade Balance
1982	I	5.31	4.52	.79	5.31	3.95	1.35
	II	5.56	5.21	.35	5.56	4.56	1.00
	III	5.51	4.57	.94	5.51	3.99	1.51
	IV	5.98	5.00	.98	5.98	4.37	1.61
1983	I	4.50	4.57	-.07	4.50	4.00	.51
	II	5.52	4.93	.59	5.52	4.32	1.20
	III	5.99	5.48	.51	5.99	4.80	1.19
	IV	6.21	6.40	-.20	6.21	5.60	.60
1984	I	5.57	5.32	.25	5.57	4.85	.72
	II	6.30	5.79	.51	6.30	5.27	1.02
	III	6.31	6.49	-.18	6.31	5.91	.40
	IV	6.71	8.64	-1.93	6.71	7.87	-1.16
1985	I	5.55	8.37	-2.82	5.55	7.50	-1.98
	II	6.44	10.03	-3.59	6.44	9.03	-2.59

SOURCES: Official Chinese Customs Statistics, various editions. (J5BR10B.D5H)

Popularly billed as a boom in consumer goods, China's recent import expansion in fact is still very strong in investment goods. That component closely parallels the progress of 1984-85's urban reforms. In 1984, the import surge was concentrated in machinery and transportation equipment, SITC 7, and metals under SITC 6, see Table 7-5, below. In 1985, heavy industry and investment goods continued to increase but there were also large-scale imports of consumer durables. For details on imports by commodity, see Table 7-6, below. Trade data by SITC one-digit level of classification in Table 7-5, above, show the increase was so dramatic that net imports of machinery and transport equipment in first quarter 1985 were only slightly less than net imports for the first three quarters of 1984. In contrast, net earnings from mineral fuel exports, mostly petroleum and traditionally China's greatest foreign exchange earner, hardly grew at all.

The slow growth in petroleum exports earnings since early 1984, in spite of the nearly 35 percent increase in exports by weight, confirms China's strategy of rapidly expanding fuel export volume to maintain earnings in the face of dramatically lower average prices. As for the remaining major foreign exchange earner, SITC Category 8 (Light Manufactures), net earnings, which had remained stable for the last four years, fell sharply in first quarter 1985. In addition, China spends nearly half a billion dollars per quarter, net, on fertilizer imports. Within the largest net import category, SITC 7, electrical equipment of various sorts shares importance with vehicles and transport equipment. The rapid growth in the volume of imports of vehicles and equipment sets shown in the next table, correspond to the increases in SITC 7 in Table 7-5.

Table 7-5
QUARTERLY SITC 1-DIGIT NET EXPORTS, 1982-1985'I
(Million US $)

		(0) Food & Animals	(1) Beverages & Tobacco	(2) Crude Materials	(3) Mineral Fuels	(4) Animal Vegetable Fats	(5) Chemicals	(6) Materials & Metals	(7) Machinery & Transport	(8) Light Manufactures	(9) Other Commodities	Total
1982	I	-131	-35	-347	1,111	-16	-424	283	-418	653	82	759
	II	-503	-24	-545	1,344	-8	-488	208	-582	836	91	329
	III	-458	7	-224	1,272	-11	-387	116	-441	818	217	908
	IV	-175	16	-221	1,302	5	-422	-194	-441	844	236	951
1983	I	-233	14	-145	1,042	6	-517	-156	-681	604	15	-51
	II	-279	11	-21	1,074	6	-462	-243	-592	761	333	589
	III	-15	16	-124	1,364	4	-378	-580	-730	858	92	507
	IV	260	16	-276	1,079	19	-573	-935	-758	791	181	-197
1984	I	73	6	-53	1,160	2	-587	-411	-745	794	12	251
	II	209	11	167	1,460	21	-634	-305	-1,060	845	-210	506
	III	233	10	-27	1,458	27	-685	-512	-1,271	867	-280	-180
	IV	340	-34	-208	1,508	9	-836	-944	-2,476	828	-118	-1,931
1985	I	276	-19	-59	1,591	-5	-850	-1,447	-2,854	327	220	-2,820

NOTE: A negative sign represents net imports. Imports are CIF, Exports are FOB.
SOURCES: Official Chinese customs statistics. (J5BR09.D5H)

Table 7-6
VOLUME OF MAJOR IMPORT COMMODITIES BY QUARTER

		Total Cereals	Wheat	Synthetic Fibers: Raw	Synthetic Fibers: Spun	Chemical Fertilizers	Polyethylene	Iron and Steel	Timber	Equipment Sets	Motor Vehicles
1982	I	3,500	2,940	104.9	37.7	1,342	77.9	654	630	362	3.9
	II	4,320	3,430	61.8	35.3	1,626	90.9	843	1,370	357	4.5
	III	4,250	4,020	34.6	16.5	1,472	113.6	958	1,280	227	2.9
	IV	4,080	3,410	37.6	7.9	1,620	139.2	1,317	1,340	182	4.8
1983	I	3,510	2,570	27.5	6.3	1,742	115.0	1,523	1,170	139	3.2
	II	3,800	2,840	25.0	6.8	2,228	59.3	2,072	1,330	179	4.7
	III	3,480	3,130	22.7	8.6	1,737	99.6	2,646	1,680	189	6.7
	IV	2,730	2,570	58.3	28.4	2,289	152.9	3,385	2,130	146	10.6
1984	I	2,950	2,830	49.8	37.7	1,943	139.1	2,699	1,850	129	11.1
	II	2,340	2,230	56.0	36.8	2,036	165.9	2,706	1,760	207	11.8
	III	2,390	2,220	68.0	39.1	2,518	186.2	3,110	2,070	173	63.0
	IV	2,730	2,590	96.2	60.2	2,719	204.4	3,775	2,240	215	64.0
1985	I	1,940	1,750	122.0	46.7	2,458	148.5	3,951	1,710	223	79.5
	II	1,422	1,260	109.5	60.7	2,246	N/A	4,703	1,396	461	102.6

* NOTE: Timber is in thousand cubic meters, equipment sets are in million US $, Motor vehicles are in thousand units, all others are in thousand tons.
SOURCES: Chinese Official Customs statistics. (J5BR13.D5H)

The data on imports by commodity in Table 7-6, above, follow the more comprehensive trends in the SITC category data. They show just how strong growth in investment goods including machinery, transport equipment, chemicals, mostly fertilizer, and metals has been. For metals and machinery, 1984 imports were substantially higher than during the previous peaks in the 1978-81 years of heavy foreign buying. The very large increase in chemical imports, on the other hand, has no recent historical precedent. Imports of investment goods increased rapidly with the introduction of urban reforms as is well documented in the data on imports of metals and computers by month in Table 7-7. Clearly consumer imports have also been significant, particularly since the third quarter 1984, as shown in Table 7-7 below. Televisions and combination radio-tape recorders in the past have followed a somewhat seasonal pattern, growing to match farm cash income at year-end. In 1984-85, however, the growth has been sustained well into 1985.

Table 7-7
MONTHLY IMPORTS OF MAJOR COMMODITIES, 1984-JUNE 1985

		Synthetic Fibres	Iron Ore	Steel	Copper	Alu-minum	Zinc	Calcu-laters	Vehi-cles	Tele-visions	Radio-Recorders
1984	Jan	15.4	307	805	22	16	14	101	3.5	171	72
	Feb	11.5	231	902	24	5	5	211	7.0	40	32
	Mar	22.6	372	828	14	28	7	102	4.6	63	32
	Apr	16.8	179	877	25	17	9	158	4.0	105	26
	May	19.9	255	901	11	17	8	107	3.0	98	42
	Jun	19.6	597	861	5	29	5	152	4.3	53	35
	Jul	19.0	333	1001	17	32	15	80	5.3	117	39
	Aug	26.3	94	1065	15	28	14	221	5.7	106	48
	Sep	22.6	1409	1042	13	28	46	565	9.0	69	48
	Oct	24.1	671	1294	45	19	20	978	10.4	194	65
	Nov	36.9	544	1235	31	13	34	555	13.1	226	137
	Dec	34.0	728	1123	41	22	32	1693	32.8	274	90
1985	Jan	32.8	346	1094	52	11	23	1673	26.2	300	102
	Feb	51.3	458	1399	26	30	20	2176	16.1	387	125
	Mar	37.9	613	1457	33	47	34	2032	37.2	365	120
	Apr	37.7	799	1318	34	28	30	2427	35.6	416	120
	May	37.7	792	1605	46	39	24	2062	28.9	424	127
	Jun	41.9	779	1764	26	33	17	3202	37.6	387	208

UNITS: Metals and fibers in thousand tons, others in thousand units.
SOURCES: Official data, not corrected for differences in days/month. (J5CM04.D5I)

In contrast to the dramatic growth in imports, data on exports by volume in Table 7-8 show no sign of a widespread surge. Cotton yarn and fabric exports have fallen in 1985 despite bumper cotton yields, as have the other textile categories covered. Cereal exports have increased, as a result of the good harvests of the past several years. Petroleum exports have gained in volume while world prices have fallen. More discussion of petroleum exports follows in the Policy section of this chapter. (See also Chapter 4, Energy.)

Table 7-8
VOLUME OF MAJOR EXPORT COMMODITIES BY QUARTER

		Total Cereals	Canned Food	Coal	Crude Pet-roleum	Refined Pet-roleum	Edible Oil Seeds	Cotton Yarn	Cotton Fabric	Poly-ester Fabric	Gar-ments
1981	I	220	85.5	1,500	2,640	920	105.0	10.0	289	92.7	78
	II	240	104.9	1,900	3,370	1,090	127.1	12.6	332	115.9	91
	III	160	91.4	1,720	3,920	1,380	44.5	10.9	320	114.0	105
	IV	250	97.7	1,820	3,930	1,280	29.3	14.1	336	147.5	105
1982	I	160	102.2	1,480	3,390	1,250	47.7	10.3	309	128.5	87
	II	220	85.7	1,690	3,880	1,140	59.9	12.1	277	133.2	101
	III	180	111.0	1,880	3,770	1,200	38.7	10.1	256	121.3	96
	IV	240	109.7	1,670	3,640	1,320	49.9	16.2	348	174.2	120
1983	I	250	97.0	1,500	3,070	1,130	83.7	13.5	294	126.1	100
	II	260	101.5	1,420	3,420	1,320	107.3	21.5	285	146.9	121
	III	270	105.4	2,080	4,630	1,280	87.0	37.8	361	182.9	115
	IV	370	99.7	1,850	3,700	1,180	83.1	41.8	431	207.4	121
1984	I	330	102.1	1,590	4,150	1,280	93.7	42.7	410	178.5	141
	II	640	107.3	1,820	5,590	1,500	111.9	39.8	447	186.2	141
	III	1000	100.9	1,820	5,660	1,550	74.4	39.4	443	163.3	127
	IV	1220	92.2	1,810	6,570	1,370	56.4	45.5	433	192.0	145
1985	I	1810	68.6	1,670	6,480	1,510	117.4	23.5	341	140.2	86
	II	2446	84.9	1,657	7,323	1,497	N/A	33.7	373	N/A	N/A

NOTE: Units are in thousand tons except for fabrics which are in million meters. Garment includes only non knitted.
SOURCES: Chinese Official Customs statistics.

Japan has been the clear winner in China's 1984-85 import sweepstakes, and data in Table 7-9 illustrate the scale of China's increased reliance on her major trading partner, quarter-by-quarter as well as relative to earlier years. By comparison, China's other trading partners seem to have gained only marginally, with the possible exception of Hong Kong. Ministry of Foreign Trade statistics for the first half suggest Hong Kong reversed its traditional role as a net importer from the mainland and Customs statistics for the period have not been released.

Japan's net exports to China have grown from very low levels in 1983 and early 1984 to more than 1.6 billion dollars in the fourth quarter of 1984 and to nearly 5 billion dollars in the first half of 1985. For the United States, net exports in the first half of 1985 remained less than one billion dollars. China's foreign exchange earnings from Hong Kong have fallen substantially in 1985. Ministry of Foreign Trade statistics, apparently based on contracts signed rather than actual goods delivered, even report a deficit for the first half. A large part of Hong Kong's export gain is through trans-shipped goods originating in Japan which, if included, would make the trade deficit with Japan even greater. Hong Kong re-exports of Japanese goods were up 220 percent in the first five months of 1985.

Table 7-9
NET EXPORTS BY PARTNER COUNTRY 1981-1985'II
(Million US Dollars)

	Total	Japan	United States	Canada	West Germany	USSR	Sing-apore	Hong Kong
1981*	439	-349	-671	-218	-75	-8	139	1,008
1982*	1,150	227	-525	-238	-12	-25	134	969
1983 I	300	128	-379	-262	-39	-41	139	838
II	982	-216	-219	-303	-6	-33	95	1,004
III	948	-435	56	-300	-70	12	98	1,084
IV	315	-542	-281	-357	-54	-61	129	1,154
1984 I	671	-197	-296	-185	-58	-57	173	999
II	969	-460	-17	-161	-93	35	196	1,050
III	339	-697	-197	-173	-37	-10	308	917
IV	-1,240	-1,647	-661	-190	-121	-57	391	789
1985 I	-2,151	-1,521	-554	-261	-190	-12	371	374
II	-2,787	-2,204	-583	-157	-266	-1[illegible]	482	273 **

NOTES: *Average Quarterly Net Exports. **Includes Macao with Hong Kong. Exports FOB, Imports converted to FOB using individual country transformation rates, which are meant to approximate customs totals as opposed to estimates of trade on a payments basis as presented in Tables 7-2 and 7-4.

SOURCES: Official Chinese customs statistics. (J5bx11a.D5H).

The deficit with Japan accounts for a full three-quarters of the total first-half 1985 deficit, and within Japan's trade, machinery and equipment again account for more than the total shortfall. China's first quarter 1985 trade preference for Japan is shown very clearly in Table 7-10, below, which gives one-digit SITC trade with each of China's major trading partners for both the average 1984 quarter and first quarter 1985 net exports. The first column to the left shows the overall pattern clearly. Net imports of Machinery and Transport (SITC 7) more than account for the total trade deficit.

It is particularly interesting to see the growing degree to which Japan's trade position with China overshadows that of the United States. Japan's net earnings from Machinery and Transport sales averaged over three times those of the United States in 1984 and in the first quarter of 1985 were over four times the United States'. When it is remembered that a significant portion of Hong Kong's net exports to China also originated in Japan, Japan's dominance of SITC 7 is even more impressive. In most categories Japan's net exports are more than twice those of the United States, and in the important telecommunications market, United States sales are dwarfed by Japan's.

This contrast in trade patterns between Japan and North America reflects a more long-run difference. Data on China's imports in Table 7-9, above, show that Japan's sales fell much more sharply in the 1982 cut back than those of the U.S. and Canada, just as they are surging more rapidly now, as import restrictions have been eased.

Examination of net exports by partner country at the one-digit level reveals where most of the competition is. Japan's strengths are in metals and machinery, while North America has done well in foods, timber, and chemicals. The strength of Japan's trade position, however, is emphasized by data on net exports at the two-digit level of SITC detail. (For details see Table 7-11.) Overall, China makes money on mineral fuels and light manufactures (mostly apparel) and spends it on chemicals, metals, and machinery. The materials, metals and machinery come overwhelmingly from Japan, while the U.S. and Canada have some advantage in supplying chemicals. For food and crude materials, Japan does not really compete with North American suppliers. There is, however, strong competition in SITC category 7 (machinery and transport equipment), and Table 10 shows clearly how much more successful Japan has been in making money from this class of commodities. Japanese net exports were more than triple those from the U.S. and far greater than those from any of China's other trading partners. In general, competition for sales to China is concentrated in SITC categories 5, 6, and 7 (chemicals, materials & metals, machinery & transport). Canada, West Germany, and even the USSR show significant net exports to China for these goods.

Table 7-10
1984 AVERAGE QUARTERLY NET EXPORTS
(Million US $)

SITC Category	Total	Japan	United States	Canada	West Germany	USSR	Singapore	Hong Kong
Total Exports	**-430**	**-805**	**-409**	**-205**	**-127**	**-23**	**274**	**929**
(0) Food & Animals	223	127	-164	-120	24	37	29	279
(1) Beverages & Tobacco	-3	1	-8	0	1	0	2	9
(2) Crude Materials	-40	113	-110	-52	39	22	-6	108
(3) Mineral Fuels	1,406	705	169	0	0	0	188	65
(4) Animal, Vegetable Fat	15	5	0	-1	1	4	0	6
(5) Chemicals	-696	-122	-198	-33	-57	-38	-2	41
(6) Materials & Metals	-566	-678	52	-28	-64	-35	34	438
(7) Machinery & Transport	-1,452	-916	-267	-4	-105	-32	20	-11
(8) Light Manufactures	835	-3	127	32	35	19	11	419
(9) Other Commodities	-153	-37	-10	0	-1	-1	-1	-425
FIRST QUARTER 1985 SITC 1-DIGIT NET EXPORTS BY TRADING PARTNER								
Net Exports	**-2,820**	**-1,521**	**-666**	**-296**	**-250**	**-12**	**369**	**374**
(0) Food & Animals	276	155	-71	-148	16	16	32	265
(1) Beverages & Tobacco	-19	1	-16	0	0		2	0
(2) Crude Materials	-59	87	-132	-62	27	46	-6	96
(3) Mineral Fuels	1,591	846	139		0		335	60
(4) Animal, Vegetable Fats	-5	3	-6	-1	1		-1	2
(5) Chemicals	-850	-129	-275	-30	-54	-36	-10	26
(6) Materials & Metals	-1,447	-834	-14	-80	-83	-40	18	165
(7) Machinery & Transport	-2,854	-1,644	-365	-4	-179	-19	-7	-305
(8) Light Manufactures	327	11	68	28	20	20	5	45
(9) Other Commodities	220	-17	6	0	1	0	1	19

SOURCES: Official Chinese Customs Statistics (J5bx28A.D5G) calculated from FOB exports and CIF imports.

For Singapore and Hong Kong, however, the pattern is markedly different. Hong Kong and Southeast Asia have traditionaly been net foreign exchange earning markets for China, and Table 7-10 above shows that in addition to light manufactures, China provides them with foods, fuels, and semi-finished materials. These patterns are apparent for both the first quarter of 1985 as well as for 1984, presented in Table 7-10, above.

At the two-digit level, Table 7-11 shows how much Japan commanded China's 1984 net imports of electrical machinery, office and data processing equipment, telecommunications systems, and road vehicles. Japan's net earnings from electrical machinery sales were more than double those for West Germany and the United States. In telecommunications equipment and road vehicles, Japan's sales dwarfed those by all other competitors. Only in office and data processing equipment did the United States approach Japan's level of performance. Since these are areas in which continued investment imports can expect to be concentrated, Japan's 1984 strength, which continued into 1985, may have established trade patterns for the near future.

A final trend which has received little attention but is very important to China's overall trade position, is devaluation. September 1985 saw the beginning of a gradual devaluation of the yuan in what appeared to be the first significant deviation in nearly five years from the de-facto exchange rate (internal settlement rate) of 2.8 yuan/dollar. By late October the yuan had been devalued by 10 percent to 3.1 yuan per dollar.

POLICY

China's long term trade policy indicates a strong linkage between her imports and the receptivity of foreign markets to her exports, a policy dictated in part by foreign exchange needs. The recent reforms have relaxed the linkage somewhat by decentralizing trade and borrowing decisions. But it is the return of import growth in the second quarter of 1985 which strengthens speculation of a fundamental trade policy shift. To counter explosive imports, the state is strengthening the role of the banking system and has imposed commodity specific import controls on consumer goods. China has maintained a commitment to preserve currency strength and stability by avoiding currency devaluation, but devaluation is apparently now unavoidable.

Many factors point to a policy linking bilateral exports and imports. The degree of trade linkage varies from country to country. At one extreme, Sino-Soviet trade is pure barter. Under the pact announced in June, the Soviets will supply machinery, transport equipment and chemicals, and invest in building and modernizing 24 industrial plants in return for agricultural and industrial raw materials and consumer goods from China. The United States trade relationship is based much less on such barter agreements. However, when the United States imposed new limits on textile imports, China countered by cutting back on agricultural imports from the United States.

Japan falls somewhere between the United States and the Soviet Union in terms of linkage. Examination of partner trade at the two-digit trade category level in Table 7-11, below, reveals what must be a pure barter agreement between China and Japan. There is a perfect match between Chinese dollar exports of petroleum products and dollar imports of steel for all of 1984. Each is 2.66 billion dollars, which could illustrate the major component of a long-term trade relationship between China and Japan. If they had agreed that dollar value exports of petroleum to Japan would match the dollar cost of steel imports, the sharp recent decline in world oil prices would have required very rapid increases in Chinese crude exports measured in weight, which is what in fact happened in 1984, as crude exports increased roughly 50 percent in volume terms. The value swap of steel for oil first identified for all of 1984 held for the first quarter of 1985 as well, with Japan selling 806 million dollars worth of steel and purchasing 807 million dollars worth of oil.

This oil-steel relationship is a symbol of what may increasingly be becoming a long-run strategy in China's trade policy. Even in a world market context, China will most likely try to tie imports roughly to some level of exports to any given trading partner. Such a bilateral balancing policy, however rough, may be essential for China in a world increasingly given to protectionist sentiments.

Table 7-11
SELECTED 1984 SITC 2-DIGIT EXPORTS AND IMPORTS
(Million Dollars)

SITC Code	Category	Total	Japan	United States	Canada	West Germany	USSR	Singapore	Hong Kong
EXPORTS									
(03)	Fish	292	133	4	1	2	0	2	131
(04)	Cereals	442	61	1	0	0		19	101
(05)	Vegetables & Fruit	794	215	46	24	57	23	36	228
(22)	Oil Seeds	472	184	3	6	5	103	9	38
(26)	Textile Fibers	879	223	14	0	65	31	3	214
(32)	Coal & Coke	306	165	0		1		0	26
(33)	Petroleum	5,450	2,667	682		0		766	267
(65)	Textile Yarns, Fabrics	3,523	400	287	50	82	129	76	1,623
(76)	Telecommunication Equip.	327	8	3	1	0	0	0	289
(79)	Other Transport	444	0	35	1	24		92	55
(84)	Apparel	2,541	299	621	116	141	62	11	808
(89)	Misc. Manufactures	1,184	75	111	12	43	12	23	601
IMPORTS									
(04)	Cereals	1,721	20	741	508	4	0	0	2
(24)	Cork & Wood	714	0	402	91	0	112	1	1
(56)	Chemical Fertilizer	1,616	54	434	93	67	153	1	0
(58)	Plastic Materials, etc.	1,116	261	253	30	121	4	29	23
(65)	Textile Yarns, Fabrics	932	240	56	5	8	0	0	168
(67)	Iron & Steel	4,213	2,666	6	2	328	164	3	30
(68)	Non-Ferrous Metals	1,091	69	67	138	29	83	3	14
(72)	Electrical Machinery	2,062	738	368	5	259	9	13	120
(75)	Office & Data Processing	858	372	332	6	6	0	2	116
(76)	Telecommunication Equip.	1,155	856	40	3	24	0	4	183
(78)	Road Vehicles	1,167	818	14	3	41	83	0	9
(79)	Other Transport	738	242	210	2	35	30	9	6
(89)	Misc. Manufactures	1,184	174	258	12	43	12	23	601

SOURCES: Official Customs Statistics. (J5bx30.D5J)

The trade deficit, and correspondingly, China's trade policy cannot be isolated from other developments in China's domestic economy. The industrial reforms now underway in China encourage enterprises to pursue profit rather than fulfill planned foreign exchange goals. Therefore, enterprises which face better domestic prices for their goods than the world market price are cutting back on exports, while others are taking advantage of the strong demand for consumer durables such as vehicles and televisions by increasing imports. Peking cleared the way for imports of consumer goods to soak up excess currency and avoid inflation in late 1984. However, steps have now been taken to slow the growth of consumer imports that ensued. The flow of imports for lower priority goods will be slowed with the imposition of strict tariffs. Control over decisions to commit foreign exchange were also tightened in response to the rapid drain on funds in the first quarters.

However, recent missions to China by various international agencies have learned that the 1985 drop in reserves is part of a deliberate effort to lower what were considered excessive reserves to a new level adequate to cover three months of imports. Part of the 1984-85 reserve drop unexplained by the current account deficit was due to large purchases of unspecified assets in Germany and Japan. Furthermore, the reserve level appears to have stabilized in the second quarter of 1985. Early reports indicate that foreign exchange reserves fell only half a billion dollars in the second quarter, after falling 3 billion dollars in the first quarter.

The serious introduction of urban reforms, which gives financial independence to individual industrial enterprises, was perhaps the single most significant development in China during the winter of 1984-85. Given the rapid growth of self-financed investment, individual enterprises are apparently deciding to import scarce and badly needed machinery and industrial materials. Banking reforms and relaxed foreign exchange regulations have encouraged this practice.

In March, Peking put a squeeze on foreign exchange because of shrinking reserves. Controls have since been lifted in the four special economic zones and four of the fourteen coastal cities, but not in the other ten. Elsewhere, funds are again being made available for projects to develop energy, transport and nonferrous metal industries or to introduce advanced technology. For example, in Zhanjiang, one of the ten cities to have their development program slowed, of the one hundred projects being planned prior to the cutbacks, sixty have been postponed or frozen, and funds have been raised for the others. Currently, China is concentrating control of access to foreign exchange loan guarantees in a few central financial agencies. This concentration allows China to influence the risk of foreign lenders and, hence, the level of her foreign borrowing. In line with this centralization, the Bank of China will closely monitor the use of foreign exchange to allocate it to the targeted and approved areas. The purchase of consumer goods with hard currency is being restricted via a new regulatory tax as of July on motor vehicles, computers, video-cassette recorders and other consumer products.

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In addition to direct regulation of foreign exchange, China has been reforming the exchange rate policy. On January 1, 1985, China abolished the internal settlement rate of 2.8 yuan to the dollar, which had been used for virtually all foreign exchange transactions (with the exception of tourist exchanges and overseas remittances). Coincidentally, the so-called official exchange rate was devalued until it reached roughly 2.8 yuan/dollar. The official exchange rate took over the role of the internal settlement rate to become China's effective exchange rate. In September, China continued the reform process by embarking on a course of gradual currency devaluation. By the end of October, there had been a 10 percent devaluation.

PROBLEMS

In the remainder of 1985, exports are likely to weaken because China is carrying out ambitious reforms in domestic pricing, foreign exchange regulations, and export reimbursement. These reforms and problems are having some negative influences on exports. The gradual devaluation of the yuan could temporalily contribute to China's growing commodity trade deficit. At the same time, the still low official exchange rate has also created a black market with a much higher exchange rate. In addition to domestic problems, China's exports are hindered by rising global protectionist tendencies.

Export problems emerge because China's domestic prices are so out-of-line with international prices that domestic firms, which keep their books in yuan, find it more profitable to sell manufactures domestically than abroad at the current exchange rate of 2.8-3.1 yuan/dollar. Before the reforms, the foreign trade corporations, FTCs, motivated to earn foreign exchange, had been willing to take domestic yuan losses on some products to earn dollars. They made up the losses on exports of other products as well as imports of goods which brought significant yuan profits. The post-reform decentralized system, however, gives no such compensation, and so exports of many light manufacturing goods have faltered seriously. In the meantime, individual firms have been encouraged to export directly, and the role of the traditionally powerful FTCs has been significantly weakened.

Recently publicized black market operations have been run at rates as high as 5.0 and 5.4 yuan/dollar. The solution to China's currency valuation problem requires adjustment of the over-inflated domestic retail prices for those manufactures on the one hand, and a further devaluation of the exchange rate on the other. However, a policy of more mini-devaluations, because of the expectations for further devaluations it creates, could exacerbate the short-term trade deficit, under-representing China's long run trade strengths. If continued gradual devaluation seemed likely, importers would step up their orders in an attempt to get delivery and payment settlements as quickly as possible. Conversely, exporters would delay accepting orders and payments if they thought they could soon get better terms with a continually weakening yuan.

Regardless of the exchange rate, China's exports face growing protectionism in a slowly growing world economy. In contrast, the rapidly growing world economy of the late 1960s supported the export-led growth in South Korea, Taiwan and Japan's "miracle growth."

PROSPECTS

Remembering back to the late 1970s and early 1980s, when "readjustment" and "foreign investment absorbtive capacity" were phrases often heard in explanations of China's sudden contraction in investment imports, it is tempting to conclude that the period of readjustment is almost over, and that with both urban and rural reforms well under way, and the party "rectification" all but completed, China's leadership has decided that it is now time to pick up where China left off when the "mini-Great Leap" was aborted.

The growth in net imports of producer goods in the first half of 1985 supports this theory. It is remarkable especially because it follows the already rapid build-up of such imports in the latter half of 1984. First-half data strengthen suspicions that China's trade strategy is shifting away from the very careful grip held on imports in the early 1980s. Only data for the second half of 1985 will tell if the new level of imports is a major shift or a temporary loss of control. But, either way, the long term outlook is for trade to regain near balance and for moderate growth in borrowing to continue the import of foreign technology and investment goods.

The continued growth in imports of steel and vehicles is particularly impressive. The recently publicized corruption scandals involving vehicle imports might reverse this trend, but the general import growth in producer goods of all kinds suggests that vehicle import growth will continue. This pattern makes sense in light of China's transport bottleneck, which is being eased significantly only by growth of highway transport. The volume of goods shipped by cooperative and privately operated vehicles is growing especially rapidly.

The reform of the foreign exchange system is likely to continue. In response to the greatly increased need for foreign exchange in the market-oriented economy, systemic changes would deal with retention of foreign exchange by export businesses, the level of State foreign exchange reserves and the exchange rate. Eventually the yuan may be devalued to 3.5 or 4.0 yuan/dollar or lower, depending on domestic inflation. In any event, a devaluation of the yuan, however gradual, would also be important to the urban reforms, as the central government relies more and more on prices and other indirect controls to replace direct administrative manipulations.

Official plans for the the next five years focus on increasing exports with about 7 percent annual growth necessary to achieve the 1990 target. The plan also calls for exports to be given priority over domestic consumption whenever possible and imports to be concentrated in the areas that support export growth, such as advanced technologies, computer software and key equipment. Importing large amounts of raw materials to support too-high construction levels is to be stopped as are high levels of consumer goods imports.

CHAPTER EIGHT: Agriculture

EXECUTIVE SUMMARY

TRENDS

- China's 12 percent agricultural growth in 1984, following 8 percent in 1983 and 11 percent in 1982, is a remarkable record of sustained rural development.
- Even more significant than total growth is the diversification of agriculture away from staples and toward vegetables, industrial crops, animal husbandry, and forestry.

POLICY

- The shift this year to a system of contractual output sales rather than quantity requisitions signals a major new stage in the commercialization of the rural economy.
- Official policy is encouraging the consolidation of lands under leasing or other arrangements to form "specialized households" with more professionally competent management.
- Agricultural taxes are to be shifted from an in-kind payment to financial obligations payable in cash.

PROBLEMS

- The major problem in 1985 is weather, with typhoon floods in the Northeast grain belt cutting output by 30 percent, and drought virtually throughout the country reducing yields.
- Output for numerous crops and products will show instabilities while prices and commercial relations are in flux.
- China has a critical shortage of good quality fodder for its rapidly growing animal husbandry industry.

PROSPECTS

- Because of the poor weather, 1985's crop output will barely grow 1 percent, while overall growth will fall to 6 percent.
- China's intermediate- and long-run agricultural prospects seem excellent, with growth in the 6-9 percent range and a rapidly maturing output mix and technology.
- Rapid commercialization of China's rural economy will continue, as more output is sold for processing and less is self-consumed.
- Land sown to grains will continue to decline while demand increases, eventuallv leading to higher prices or imports.

TRENDS

The dynamism of China's agriculture since 1978 has intensified in 1984 and 1985, with total agricultural output, excluding rural industry, growing 11.7 percent in 1984. Crop output growth, traditionally the slowest of all agricultural sectors, was greater than 8 percent in 1984 for the third consecutive year. Except for 1980 which was a year of severe droughts and floods, crop output growth has not fallen below 6 percent annually in any year since 1977. This high sustained growth record is just one indication of the sweeping changes in China'a agriculture, changes which continue to unfold in 1985.

The two major components of these changes are the privatization of all agricultural sectors and the rapid commercialization of agriculture, as farm households increasingly specialize, increasingly use markets, and increasingly introduce better methods, whether technical, such as vinyl greenhousing, or managerial, as reflected by shifts in cropping and output patterns.

It cannot be overemphasized, however, how fundamental the rural land tenure reforms have been. Farmers in private conversation no longer call the program the "individual responsibility system," as it is officially known, but rather the "individual ownership system." China's agriculture is now a private owner-tiller agriculture, and what is more, an owner-tiller agriculture with, by poor-country standards, a remarkably egalitarian distribution of land, herds, and other assets. Such a relatively egalitarian distribution of productive assets implies relatively equal incomes, with profound implications for the nature of China's economic growth and related social development. China's rural economy has, to a degree, become a self-propelled economic entity, with its own light manufacturing sector, village industry, enjoying the highest sustained growth of any sector in the economy.

Rural output as discussed above does not include village industry (sometimes called brigade industry). However, as traditionally measured by China, the overall high growth in agricultural value reflects not only strong growth in traditional sectors, but also the growing significance of village industry, which has had an average growth rate of 22.2 percent over the past 13 years. This sector now contributes more to the gross value of agriculture than animal husbandry, making it the second largest component in agricultural output value. But precisely because of the rapidly growing output value of village industry, Chinese statisticians have begun to classify it as part of industrial output rather than agricultural output. This practice more accurately reflects the nature of village industry whose rapid growth is an indication of the rapid diversification of the rural population.

Table 8-1
GROSS AGRICULTURAL GROWTH AND OUTPUT VALUE, 1976-84

YEAR	Crops	Forestry	Husbandry	Fishery	Village Industry	Other Sideline	Gross Value	without Village
Growth (Percent)								
1976	-2.0	15.6	2.2	1.0	44.8	12.5	2.2	.0
1977	-1.0	-1.9	.3	5.2	23.2	7.2	1.3	-.4
1978	9.4	5.5	4.9	.0	15.4	2.2	8.5	7.9
1979	7.2	1.4	14.6	-3.4	16.4	-3.5	8.1	7.3
1980	-.5	12.2	7.0	7.6	21.3	6.1	3.5	1.7
1981	5.9	4.1	5.9	4.4	12.2	8.5	6.6	5.9
1982	10.3	8.5	13.2	12.3	9.7	21.9	11.1	11.3
1983	8.3	10.2	3.9	8.6	22.3	11.6	9.6	7.8
1984	9.7	16.7	13.9	16.6	52.4	26.6	17.1	11.7
Output Value (bil. 1980 Yuan)								
1984	196.25	13.73	48.02	5.76	57.65	16.29	337.70	280.05

SOURCES: China State Statistical Bureau. (J5BD14.R5D)

Table 8-1, above, shows the sustained growth in virtually every agricultural sector. The pace of output since 1980 has been particularly impressive. At the same time, the very rapid growth in village industry is shown to have had a major influence on agricultural growth rates as traditionally measured, with the exception of 1982, when light industrial growth nationwide was slowed by official restrictions. The difference in output with and without village industry can be seen in the two right-hand columns of Table 8-1.

Table 8-1 also shows the particularly impressive record for 1984. The sustained crop output growth is as much the result of shifts in output to higher value-yielding crops as it is the result of increases in yields of individual crops themselves. The renewed or continued growth in all other rural sectors reflects the diversification of agriculture as the labor force shifts out of traditional crop production.

In addition to crop diversification, animal husbandry plays a central role and, except for village industry, is by far the largest non-crop subsector of agriculture. Growing 11.7 percent in 1984 (the same as for all agriculture), animal husbandry recovered from its slow growth in 1983, due largely to low pork prices and the shift of farm resources, especially in the easternmost provinces, into other activities. Table 8-2, below, shows that the growth in animal husbandry output has continued and even accelerated into 1985. In the first six months of 1985, output growth of all meats was nearly 16 percent over the same period in 1984. Output growth rates for eggs and milk in the same period were more than twice that for meats.

Table 8-2
OUTPUT OF ANIMAL HUSBANDRY PRODUCTS, 1980-85
(Percent Growth)

Year	Pork	Beef	Mutton	Pork, Beef, Mutton	Eggs	Milk
1980	13.2	17.4	17.1	13.5	--	6.6
1981	4.8	-8.0	7.0	4.6	--	13.1
1982	7.0	6.9	10.1	7.1	--	25.4
1983	3.5	18.6	4.0	3.8	18.3	14.0
1984	9.8	21.2	5.3	9.9	32.4	19.8
1985*	14.7	-- 42.3 --		15.6	43.4	33.3
1984 Output:						
thousand tons	14,451	382	573	15,406	4,400	2,210
kg per capita	14.0	.37	.55	14.9	4.3	2.1

* NOTE: The growth rate for beef and mutton is combined for 1985. 1985 data are for the first six months of 1985 only.

SOURCES: Chinese Agricultural Yearbooks, SSB Communique, and 1985 Statistical Abstract. Output of eggs and individual meats are RCR estimates based on USDA methodology. (J5CH01t.R5H)

In animal husbandry, the pattern of output and investment has shifted away from the pastoral regions of China to suburban farms and enterprises. This is particularly true of the dairy industry and the production of whole milk, of which there is a chronic shortage in all urban areas. Urban milk output has grown faster than output in other parts of China (for 1983, 19.5 percent as opposed to 12.2 percent). At the same time, meat demand has come to emphasize higher quality cuts of meat and lean meat. Fatty pork is reportedly very difficult to sell. Both of these trends, urban-based dairy and high-quality feed-lot meat production, represent a major shift in animal husbandry technology with important implications not only for consumption patterns, but also for feed grain demand.

For the time being, however, much of animal husbandry output, which for China is overwhelmingly pork production, is small-scale peasant-based production. As such, it has been heavily influenced by the shift to private management. Fattening periods are shorter and dressed weights (pork per hog) have increased from 53 kilograms in 1979 to over 60 kilograms in 1984. The fattening periods are still long by international standards (18 months as opposed to 12 in the U.S.), indicating that potential for sustained growth in output exists.

China's meat production is placed in international comparison in Table 8-3, below. China's meat output matches that of the Soviet Union and is only somewhat below output in the United States. On a per capita basis, of course, China's output is extremely low by world standards, roughly half the level for Brazil.

Table 8-3
OUTPUT OF PORK, BEEF, AND MUTTON BY MAJOR WORLD PRODUCERS, 1982-3

	1982 (Percent Growth)	1983 (Percent Growth)	1983 Output (mil. tons)	1983 Output (kilo/ person)
CHINA	7.1	3.8	14.0	13.8
Argentina	-10.8	-11.7	2.6	88.9
Australia	1.8	-.9	2.3	149.4
Brazil	4.3	2.9	3.5	27.1
W. Germany	-4.7	14.3	4.6	75.6
Japan	2.0	1.0	1.9	16.3
United States	-3.9	5.1	17.7	75.5
U.S.S.R.	-2.9	7.7	13.4	49.2
Other Producers	.9	3.0	53.8	19.6
WORLD TOTAL	-.03	3.8	114.0	24.6

SOURCES: SSB Statistical Yearbooks and FAO production yearbook. (J5CH25BT.R5H)

The new agricultural production contracts signed under the contract procurement system are shifting land out of grains and cotton to uses with higher value yields, which could maintain the high growth in overall output, in spite of land constraints and slower growth in yields for individual crops. A further reduction in the area planted in rice in Guangdong is planned to allow the province to take advantage of its subtropical climate to produce higher yielding industrial crops. In 1985, bumper harvests of sugarcane, fruit, jute, tobacco, and other local special products were reaped. The rice that is being grown now is finer, higher quality rice that consumers demand.

The area planted in cotton will be reduced because supply greatly exceeds demand. Despite damage to the cotton crop due to poor weather in 1985, there was a bumper crop. Therefore, the state will purchase more of this year's crop at the lower fixed price and less of the crop at the above-quota higher price. The amount of cotton to be purchased by the state in 1986 is to be equal to the amount purchased this year.

As an additional indicator of agriculture's commercialization, farmers are increasingly selling their output for further processing rather than consuming it themselves or selling it in its unprocessed form for direct consumption. Furthermore, the growth in the food processing industry (9 percent in 1984) accelerates rural specialization, so that there is more commercial exchange in the rural areas themselves. Previously, commercialization in the rural areas consisted mainly of sales of rural agricultural products to urban areas. As an example of foods used for manufacturing inputs, in 1984 twice as much grain was used in the food processing and brewery industries than in 1978.

To summarize, the trends in China's agriculture, allowing for variations in weather, are ones of rapid growth and diversification, with animal husbandry playing a leading role in the process. These trends reflect, in turn, the policy objectives of the central government.

POLICY

Major official policy initiatives in rural China continue to emphasize the individual and private nature of the new agricultural system, both by extending the ownership system and reforming prices. By far the most significant move of 1985 was the introduction of the contract purchasing system, through which farmers have a degree of choice over what they produce. At the same time, the new land ownership (or "responsibility") program has been extended to the nation's vast rangelands, promising eventual solution to widespread problems of overgrazing, soil erosion, and desertification. A twist in the land ownership system overall has come from official encouragement to farmers to pool their lands and herds for more efficient operation, often under the leadership of so-called "specialized households."

The "Contract Purchasing System" inaugurated at the beginning of 1985 is intended to speed up the process of shifting the bulk of China's rural labor force out of crop farming and into other economic activities, many of them in the increasing new urban areas. The first phase of the rural reforms, the household responsibility system, is over 5 years old and has essentially transformed rural China's production from a collective system to one based on private ownership. With this base, the second-phase reforms promise far-reaching changes in the rural economy and continued growth in productivity and incomes. Such sustained high agricultural growth is a major stimulus to the continuing success of the industrial and urban reforms.

Under China's traditional agricultural system, each commune, brigade, team, and more recently, each household was assigned an output quota for delivery to the State at the quota price. Sales to the State over the quota were sold at various higher prices. Individual farmers had little if any control over what they grew.

Under the new contract procurement system, announced in "Document 1" of 1985, mandatory deliveries of output to the State are replaced by output deliveries specified in annual contracts to which the farmer and the State mutually agree. This new arrangement further dismantles China's centrally-planned economic control mechanisms and further converts rural China to a commercialized, market-oriented economy.

The major impact of such a reform is the sudden increase in the sensitivity of the rural economy to prices. The irrationalities in relative rural prices are increasingly apparent, with vegetable output declining in some areas because of low prices. Just as shifting to profit incentives and enterprise independence in industry will speed its price reform, the increased independence of rural management is forcing rural prices to move towards supply equilibrium.

Official policy is aware of this difficulty and has moved to meet it for some rural products. In particular, the spring and summer of 1985 saw major price adjustments in foods for urban areas. The largest price increases were for meat and fish products. According to scattered reports, some beef prices increased 120 percent, while the most important price, for pork, increased 36 percent. A more nationwide price increase measure, from urban household survey data, shows that in the second quarter of 1985 pork prices increased 25 percent, beef prices 9 percent, chicken 19 percent and fish 41 percent (see Table 9-4 in Chapter 9, on Commerce and Prices). These prices are reported to have had a major influence on urban consumption patterns during the summer of 1985. To lessen the impact of price rises on urban standards of living, income supplements were given to households, supplements said to match the average increase in spending needed.

The important point to stress about these official price changes is that they are apparently part of a program of relative price adjustments nationwide, price adjustments designed to make the private-based rural economy function in the new decentralized private-ownership environment.

1985 policies have extended the framework for private control to China's grasslands, vast extenses of semi-arid range suitable only for grazing livestock. Traditionally, and even under the commune system, these rangelands were a commons, grazed by all. As a result, with the settlement of herdsmen and with the very rapid population growth since 1949, the rangeland has become seriously overgrazed, with badly deteriorated ground cover, wind and water erosion, and desertification, with moving sand dunes threatening the more valuable lands.

After a pilot law passed in Inner Mongolia in 1983, the central government passed a National Grassland Law in June, 1985, which delegates control of specific tracts of range to individual herdsman households. Encouraged to combine their range tracts, herdsmen now have incentives to control the use of their grazing land, the first essential step in improving their animal husbandry practices. Such a move to privatize the grazing range is extremely rare in poor countries, where semi-arid regions world-wide are in serious decline. Although implementation will require some period of time, for rural China, the grasslands law represents the latest and most extreme step being taken by China to tap the potential of private incentives by transferring control of productive assets to individuals.

The official encouragement of combining lands is also increasingly widespread in the more agricultural areas of rural China. Specialized households, with more experienced farmers in leading management positions, are being allowed to receive land on leasehold or through some other sharing arrangement (but not "sale," it is emphasized). Not only does this trend provide a better environment for technology tranfser through the newer extension methods, but it also frees other members of the rural labor force to enter other pursuits, in particular sideline occupations, often with some manufacturing component. At the same time, these more mobile members of the labor force keep their ownership stake in, and income stream from, their original land distributed under the reforms of the early 1980's.

PROBLEMS

In addition to the potentially serious weather problems in 1985, China's agriculture, and rural economy in general, face a host of problems related to output adjustments under the new price system, losses of skilled labor and land to industry, illegal over-taxation from local officials, and problems of inefficient transfers of technical information to the farmers who need it.

It is difficult to talk about weather in a country as vast as China, where severe droughts and floods can and do occur simultaneously over areas populated by hundreds of millions of people. 1985 is one of those years. After severe drought in parts of the Northeast through early and mid-summer, sudden successive typhoons hit the same region and flooded much of the grain crop. As a result, grain output in one of China's major breadbasket regions is reported down as much as 33 percent in some provinces. Given the reduction of planted area to grains in most other parts of China, grain production is likely to be significantly reduced from 1984's record production.

At the same time, drought conditions have continued in most other major agriculture regions, from Guangdong in the south to Hebei in the north, and even Hunan along the Yangtze River. It is still too early to know just how bad the 1985 harvest will be, but a sharp reduction in rural incomes and economic activity which could result would represent a serious problem, although possibly only a temporary one, for all of rural China.

A different problem, related to the price changes and rapidly growing commercialization of agriculture, is the instability of output as farm prices find their proper relative levels. This problem has already been very apparent for vegetables. In Jiangsu, for example, arguably China's richest farm province, peasants have taken land and other resources out of vegetables because prices from the state contracts were still too low to be attractive, given other opportunities. The May 1985 vegetable crisis in Peking is another well-known example of peasants voting with their hoes and refusing to plant crops which are poorly paid. On the other hand, there are some reports that urban pork consumption has dropped after the strong price rises in the first half of 1985, because the quality of the meat did not warrant the price, when consumers considered alternative sources of protein, especially eggs.

There have been continual official complaints and other accounts in the Chinese press of the loss of land and labor to more idustrial sideline activities. There is reportedly a shortage of well-educated and experienced workers in agriculture, as a result of the lure of [illegible] jobs and of towns. The quality of labor, for tillage, care, and weeding, has reportedly declined. The problem has spread to rural party cadres, who are focusing attention more on town industry than maintaining balanced crop output of good quality. Without more quantitative measures, it is difficult to evaluate these many reports, but they are bound to appear in some degree, and yield and output results for 1985 and 1986 will eventually provide relevant information.

It is also important to mention the problem of feed quality and availability for animal husbandry. Traditionally, China's animals have been foragers, eating what they could find. In the grasslands, the nutrient value of the grass and hay has deterioriated, and other forms of fodder are poorly developed. For a modern animal husbandry industry, quality nutrition is essential, not only from grains and other specialized fodder crops, but also from feed additives, which China now imports in considerable quantity. China is only just beginning to address this problem, which could prove to be a major restriction on the growth of quality meat and dairy product output.

A final fundamental problem is one of technology. With private tiller-owner agriculture now the rule in China, technology transfer to rural areas has become a more traditional job of extension work and education. These channels are poorly developed in China, although a network of agricultural colleges exists and forms the foundation of the emerging extension program. It is clear that the early easy gains in farm productivity from the new ownership system cannot continue for long. The critical question is whether the needed technology transfer can occur to maintain the growth in productivity so apparent in the early 1980s.

PROSPECTS

In general, the intermediate- and long-term prospects for China's agriculture are excellent, because the owner-tiller environment will continue to generate adjustments to weather and technical conditions, and at the same time inspire efforts to make the land more productive, either by different choices for cropping patterns, or because of attention paid to other products, in particular animal husbandry.

For 1985, however, crop output will barely grow at one percent and agricultural output growth overall will fall to 6 percent, which is still very high by poor country standards. Emboldened by the success of the past few years, China's agricultural officials in 1985 began speaking of quadrupling agricultural output by the year 2000, relative to 1980, which is a much higher target than that announced in 1980, when all of industry and agriculture together were to quadruple in the same period. Quadrupling agriculture is not likely, but growth will be such that tripling is possible and even probable.

One major mechanism for this increase is the shift of planted land and rural labor out of traditional staple crops, such as coarse grains, and into other crops with higher value yields and into animal husbandry and sidelines which bring an even greater return to labor, the relatively plentiful resource.

The shift in cropping patterns is extremely important for maintaining China's rapid growth in agricultural value output. Some crops, such as fruits, vegetables, and certain industrial crops, have a much higher "value yield," gross revenue per hectare, than staples and other traditional crops. Even if yields in staples grow slowly, and even if farm land is increasingly taken over for industry and housing, shifting the remaining land from lower to higher value-yielding crops will increase the average value yield for all planted land. Hence, in spite of the land constraints and contemporary limits on yields for individual crops, total crop output in China, barring major weather disasters, can continue to sustain its remarkable growth rate of the past few years.

In mentioning weather again, it is important to remember that many of the worst weather disasters in any economy are often the results of man-made problems as well as natural ones. If there is an administrative and incentive framework sufficient to bring a concerted response to some natural condition, its impact is often greatly blunted. Conversely, if there is a breakdown of government and private effectiveness, natural downturns, even mild ones, can have a disastrous effect. China is in a position to give maximum response to the natural difficulties represented by 1985's difficult weather pattern. Weather has not been this poor since 1980, when it was much worse. In 1980, the whole rural land tenure reform was not yet in place, and yet output still rose 1 percent, with crop output remaining unchanged from 1979. In other words, the weather in 1985 may be poor, but the system has not been tested to learn its response to such difficulties, and all indications are that the response will be very good.

CHAPTER NINE - Commerce and Prices

EXECUTIVE SUMMARY

TRENDS

* A commercial renaissance is spreading over China in the wake of rural and urban reforms and the speed of urbanization.
* Retail sales and rural procurements are rapidly shifting away from state enterprises and list price transactions.
* As a result, in 1985 inflation is high by Chinese standards, although incomplete data make analysis difficult.

POLICY

* Official policy has strongly encouraged both the expanding commercialism and price adjustments leading to inflation.
* Collective and decentralized ownership shifts have accompanied official urban price increases, part of the first phase of a 5-year price reform program.
* Administrative discipline of price rises is still crucial.

PROBLEMS

* Finding the right pace for commercialization and price adjustment is the critical problem.
* Commercialization without a corrected price system is leading to output irrationalities, shortages and gluts.

PROSPECTS

* Commercialization of the economy will continue and even accelerate, due to fundamental underlying factors.
* Inflation will be high by Chinese standards in 1985, but will moderate in 1986, as price discipline measures see-saw.

TRENDS

The many hawkers and produce stalls increasingly seen in China's cities and towns represent a much more fundamental and widespread commercial renaissance. A central theme in China's economic development since 1978 is the rapid commercialization of economic life, as reforms and their repercussions move China further and further away from the physical allocations, command production, and semi-self-sufficiency of the Maoist period. The rapid increase in exchange transactions, whether retail sales or farm wholesale sales, and in particular sales by collectives and individuals, is perhaps the clearest indication of this commercial explosion. At the same time, the freer pattern of transactions is resulting in rapid price changes, especially in 1985, which appears to be a year of major inflation. Both these important trends, commercial decentralization and price inflation, may be at their maximum this year.

The extraordinary explosion in commercial activity is best seen in Table 9-1, below, which shows not only the double-digit growth of retail sales overall, but also how growth of sales by collectives and individuals have far outstripped sales by state-owned units. Acceleration of the sales in 1984-85 makes the process even more remarkable. Retail sales overall grew 25 percent in the first half of 1985, and sales by individuals, which have virtually doubled every year since 1980, have continued to grow at a 95 percent pace in 1985. In short, China in 1984-85 is experiencing a period of protracted commercialization and monetarization of its economy, which must be, and in fact is, having a profound effect on every aspect of China's economic life.

Table 9-1
RETAIL SALES

Year	Total Retail Sales	State Owned	Collectively Owned	Jointly Owned Ventures	Individual	Peasants to Non-peasants
	(Growth Rate)					
1980	18.9	13.1	61.8	N/A	248.8	45.3
1981	9.8	4.6	32.5	175.0	149.3	29.6
1982	9.4	4.7	21.3	45.5	99.5	23.9
1983	10.9	4.4	14.4	125.0	147.3	20.0
1984 *	18.5	14.9	12.4	111.1	75.4	27.8
1985 **	24.5	13.9	18.0	66.7	95.2	N/A
	(Billion Yuan)					
1984	320.6	153.8	133.7	.76	32.4	17.0

* NOTE: The definition of State and Collective Enterprises changed in 1984. The growth rates are calculated based on consistent definitions.
** NOTE: 1985 for first half only. Total Retail Sales is exclusive of Peasant sales to Non-peasants.
SOURCES: Official Chinese publications and RCR calculations. (J5CBC01.D5J)

Commercialization of the rural economy presents another picture of the changes in the economic life in China. Through the late 1970s the rural economy was bound by a system of required output deliveries to the state at fixed list prices and attempted commune self-sufficiency. With the abolition of communes in the early 1980's, with the distribution of land and other productive assets to individual farmers and herdsmen, and with the shift to mutually agreeable contracts as the basis for sales to the state, rural economic life in 1985 would be unrecognizable to a farmer of ten years ago.

This rural commercialization is presented clearly in Table 9-2, below, which shows how sales at the traditional list price have plummeted from 85 percent of the total in 1978 to 34 percent at the end of 1984. At the same time, the share sold at above-quota prices has quadrupled while sales at other "free market" prices have tripled in volume.

It should be mentioned at this point that "free" markets are not entirely free, because all prices are monitored by state agents and significant deviations from acceptable norms are rather strongly discouraged.

It is probably not an exaggeration to say that there is a commercial "fever" in rural China, and 1985's rural contract reforms are an important part of this fever. Presented in what is know as "Document One" for 1985, the contract reforms end the more than 25-year old Maoist policies of required crop sales to the state. In their place, individual contracts for delivery of output at agreed-upon levels and price have been substituted. For a more thorough discussion of agricultural reforms in general, see Chapter 8.

This commercial fervor in rural China in 1985 still coexists with many regulations in food distribution remaining from the earlier collective period. Competition between individually and peasant-run operations on the one hand and state-owned commercial enterprises on the other hand is forcing rapid changes in the state stores. In general, the state stores are being forced to provide fresher produce and better quality products in reasonable quantities. In many cases, the state stores cannot compete with private traders for higher quality meats, fish and vegetables, because of the private willingness to pay premium wholesale prices.

Table 9-2
VOLUME OF FARM AND SIDELINE SALES BY PURCHASING PRICE 1978-84

	Total Value	List Price	Above-Quota Price	Nego-tiated Price	"Free" Market Price
(Billion Current Yuan)					
1978	55.79	47.24	4.42	1.02	3.11
1979	71.36	51.17	11.94	3.50	4.75
1980	84.22	54.22	15.10	8.00	6.90
1981	95.50	55.56	20.00	11.00	8.94
1982	108.30	62.22	22.50	12.50	11.08
1983	126.50	60.70	35.50	17.00	13.30
1984	144.00	48.78	48.39	20.70	26.13
(Percent of Total)					
1978	100.0	84.7	7.9	1.8	5.6
1979	100.0	71.7	16.7	4.9	6.7
1980	100.0	64.4	17.9	9.5	8.2
1981	100.0	58.2	20.9	11.5	9.4
1982	100.0	57.5	20.8	11.5	10.2
1983	100.0	48.0	28.1	13.4	10.5
1984	100.0	33.9	33.6	14.4	18.1

SOURCES: State Statistical Bureau official data.

Finally, one area for which there is little official statistical data is the commercial relations between enterprises. Yet, what information there is, describes a rapidly increasing role of horizontal transactions between enterprises for scarce materials. For many materials, in particular energy and metals, there is heated competition for deliveries, and increasingly the state enterprises, which traditionally received priority in supplies, are missing deliveries and complaining about non-fulfillment of traditional contracts. Again, the main issue is price. Other purchasers are offering premium prices, and sellers are finding ways to accomodate their needs before those of state enterprises.

As much of the discussion above indicates, the commercialization of China's economy is closely linked to prices and price changes. 1985 has been targeted by officials as a major year for adjustments in what is universally regarded as an irrational price system and not representative of relative scarcities. Many staples and basic materials, such as energy, are low-priced and rationed or in short supply. Others, in particular manufactures considered to be luxuries, are sold at very high prices and have voluminous unsold inventories. In addition, there is little, if any, price differentiation for quality differences.

Under the pressure of commercial transactions, these prices have begun to accelerate adjustments already begun before 1985. Because prices in general rise more easily than they fall, the result has been significant inflation in

1985. At the same time, official price changes, especially in foodstuffs sold to urban populations, have added to the inflationary trends reported nationwide. Tables 9-3 and 9-4, below, give what limited information there is on 1985 price changes.

Table 9-3
PRICE INDICES
(Percent Growth)

Year	Retail Price Index	Cost of Living Index
1970	-.2	.0
1971	-.8	-.1
1972	-.2	.1
1973	.6	.1
1974	.5	.7
1975	.2	.4
1976	.3	.3
1977	2.0	2.7
1978	.7	.7
1979	2.0	1.9
1980	6.0	7.5
1981	2.4	2.5
1982	1.9	2.0
1983	1.5	2.0
1984	2.8	2.7
1985*	5.6	6.3

SOURCES: State Statistical Bureau official data. (J5CBC02S.T5J)
* NOTE: 1985 indices are estimated from data for the first 3 months of 1985.

It is important to note that Chinese data on prices, especially prices in rural markets and fairs, are probably of poor quality, because of the lack of Chinese familiarity with random sampling techniques. Additionally, many of the most significant price increases have occurred in unofficial transactions and hence are under-reported in the overall average price indexes. It is not clear, therefore, how much the various published price data deviate from what random sampling would show. Given the widespread reports of black market activities, it is very likely that price increases in 1985 are considerably higher than those reported in official statistics.

Nevertheless, data in Tables 9-3 and 9-4 show that 1985 is a year of relatively rapid price increases, and since much of the price rises have been reported in the second and third quarters, subsequent data are certainly to show a more exaggerated trend. The data in Table 9-3, above, indicate just how low official inflation has been in China. The one recent exception was in 1979-80, at the time of major rural price reforms associated with rural land reform begun at that time. 1985 appears to be a second period of price inflation, but this time in industrial goods as well as rural goods, again coinciding with major reforms, this time in industry and the urban economy.

Urban household survey data in Table 9-4, below, show the relatively rapid rises in average prices for major non-staple foods purchased in 1984 and 1985.

The growth rates are calculated relative to the same quarter in the previous year. Meats and marine products (fish and shrimp) have shown a strong general increase in prices, especially in the first half of 1985. At the same time, eggs and milk appear not to be affected by the reforms so far. While small-scale production of eggs by individual farmers has reportedly kept supplies up in urban areas, fresh milk is in critically short supply and some scattered price rises in several cities have begun to occur.

Table 9-4
GROWTH IN PRICE (UNIT VALUE) OF MISCELLANEOUS FOODS
(Percent)

Time Period		Pork	Beef & Mutton	Chicken	Fresh Eggs	Marine Foods	Fresh Milk
1984	I	4.13	11.03	3.67	.06	10.37	.16
	II	5.11	19.38	5.33	-.85	8.84	.94
	III	-.84	5.59	5.87	-1.92	12.95	9.92
	IV	5.85	9.75	7.50	1.20	13.87	-3.00
1985	I	11.38	19.86	21.60	2.67	36.99	-10.24
	II	25.28	9.11	19.23	1.47	41.47	3.43

SOURCES: SSB, Monthly Bulletin of Statistics, July-August, 1985, pp.79-82 (J5CBC01T.B5J)

Overall, then, commercial activity in China is growing very rapidly and emphasizing non-state insitutions, with the most rapid growth in retail sales coming from individuals. An important part of this commercial explosion is the widespread program of price adjustments underway in retail, rural, and industrial materials markets. Better data are needed for a more complete understanding, but what information there is indicates that China is at least beginning the difficult yet important task of industrial price reform.

POLICY

China's clear policy is to encourage commercialization and price adjustments. The encouragement has taken many forms, including promotion of ownership shifts from state to cooperative and even individual control, and increasingly easy permission for opening private shops. In terms of pricing the policy includes adjustment of state prices as part of a five-year program, upward adjustments of major urban foods, with income subsidy compensations, and increases in industrial material prices for new customers and new contracts as a way of gradually adjusting at the margin. At the same time, official policy is acutely worried about inflation, and numerous administrative steps seek to maintain control, including a distinction being made between "good" and "bad" inflation.

The clearest and most fundamental element in the official policy is the program of rural and urban reforms, which by May, 1985 had transferred control of more than 10,000 industrial enterprises to on-site managers. For more information on these reforms, see Chapter 3, on Industry. The rural transfer of ownership has been essentially completed for several years, although the National Grasslands Law of June, 1985 basically transfers ownership rights to herdsman for China's vast semi-arid rangeland. The importance of these ownership and control tranfers is the powerful incentives they introduce to buy and sell commercially rather than trusting the cumbersome and undependable plan allocation process. These shifts are the driving force behind much of China's commercial expansion.

Both central and local government policies are continuing to encourage private shops in cities and towns, largely to absorb the marginally employed. At the same time, outlying peasants are increasingly being given permission to come into urban areas to sell their produce and other goods. Additionally, the very rapid urbanization underway in China is bringing rural populations into urban areas permanently, where their lives become much more closely related with the nation's money economy. All of these steps are supporting the use of money and markets, in both urban and rural settings.

Price reforms in China, on the other hand, are a much more difficult set of policies to carry out, because of the impact rapid inflation might have on urban political stability, in particular. In fact, the commercialization reforms are themselves the most basic part of price reforms, because with individual and profit incentives introduced, the natural power of exchange relationships to raise prices of scarce goods and services is almost irresistable. This is what the Chinese are discovering. Therefore, together with their programs to introduce price shifts, official policy is also making considerable efforts to police and discipline price rises considered to be excessive or poorly timed. The combination of these two forces, relaxation and discipline, governs the progress of price reforms in 1985.

1985's portion of the announced five-year price reform program has these basic parts: (1) increases in meat prices, (2) transport fare increases for short hauls, both passenger and freight, (3) the shift to contracts rather than procurements for grain, at higher average prices, and (4) the introduction of price differentials for product quality differences. The spring increase in urban meat and other food prices received the greatest attention, as urban populations were also given income supplements to compensate for the effective income loss due to price rises. By all accounts the adjustment was a success. This whole program, however, is most important for showing the seriousness with which official policy is addressing the need for relative price adjustments.

The only information on price adjustments for industrial materials comes in spotty reports about very rapid price increases for metals, especially steel and aluminum. Only early in the fourth quarter of 1985 have there been reports of price softening, apparently in response to successful government efforts to reduce investment. The reported 30-50 percent spring and summer increases in metal prices, followed by a ten percent or so correction in October, parallels the pattern in industrial output growth, which was up 23 percent for the first half of the year, but which had fallen to 14 percent by September, on a monthly basis over September, 1984. The overall effect, however, will have been a very rapid 1985 rise in metal prices.

For energy and some other basic materials, one strategy has been to keep old prices for traditional deliveries to traditional customers, but to charge higher prices to new customers and for increases in the traditional deliveries. This has the advantage of requiring decisions about new uses to consider the higher scarcity value of the materials, while at the same time leaving the precarious financial condition of other traditional customers undisturbed.

The concern about overly rapid price rises reflects worries about enterprise solvency as well as worries about political stability in urban areas. Staple price rises in many countries have led to urban riots, and the soccer riots of May, 1985 in Peking reminded the Chinese that they could have similar problems.

As a result, efforts to control inflation have included maintenance of inventories to meet runs on supplies, imports of critical goods and materials, and above all, direct control of prices through monitoring and criminal sanctions. In particular, prices of urban staples are closely watched. At the same time, public relations efforts have been carried out to explain the need for "price adjustments," which are good, and which are contrasted with "inflation," which is bad. In fact, it is not uncommon in street conversations to be told that even though some prices are higher, at least you can get the goods when you want them.

PROBLEMS

The major problems in commerce and pricing revolve around the rapid commercialization of the economy while prices are still poor guides to the scarcity and cost of goods and services. Additionally, as free market traders bid materials away from traditional users, which cannot adjust fast enough to afford the higher costs, subsidies and the threats of bankruptcy have increased, with potential for serious unemployment possible in some locals. Finally, an important exception to the program of commercialization is the relatively slow progress being made in labor markets.

By far the most serious problem is the pattern of output irrationalities which are caused by price irrationalities in the new environment of profit incentives and individual management. The decline in vegetable availability in Peking was one celebrated example, which had to be corrected with price adjustments and further commercial reforms. Another important example is pork, which for several years has had low output because of what farmers considered unsatisfactory prices. In industry, the problem has been the reverse. Consumer manufactures' traditional high prices have falsely encouraged investment and output of low quality goods for which there is no market. Again, the price irrationalities have brought about production irrationalities. In fact, however, this problem may be one step in the solution of the general pricing problem, because the output irrationalities should, in time, bring about price adjustments.

Although 1985 has seen labor wage reforms, in general, Chinese labor is allocated to enterprises, and there is still very little freedom to leave one job in search of another. Similarly, although the October, 1984 urban reform document implemented management rights to hire and fire, in actual practice the process has been introduced only very slowly, and there have been no reports of a general freeing up of labor mobility. One sign of flexibility in addressing this very important difficulty is the growing importance of merit bonuses, which, less dramatically than hiring and firing, still provide management leverage over worker performance.

In sum, the problems of price reform and commercialization are paradoxical. On the one hand, changes are too slow, but on the other, they are too fast. This whole issue is undoubtedly one of the most difficult and subtle problems facing China, and the solutions, as they unfold, should give a good indication of the success of the overall reform program.

PROSPECTS

Overall, the prospects for 1985 are for even more accelerated commercial expansion and for double-digit inflation. Not all of this inflation will be reflected in official price indexes, but the official measures will be quite high as well.

The prospects for continuing commercial expansion are supported by several basic underlying facts about China's current economic development: the rapid urbanization of the population, the underlying egalitarian asset distribution in rural areas, the good prospects for increasing managerial decentralization in industry, and the overall rapid pace of industrial growth.

China's population will be more than 50 percent urban by 1988 or 1989, reflecting a process ~~of~~ rapid change in population life styles and commercial dependence. Towns and cities are centers of commerce, and as China's rural population leaves the family land to arrangements of shared management and moves to cities, the level of commercial participation nationwide will continue its very rapid rise. Because the recent rural reforms have given households their own lands and herds, migrants to towns, and peasants living in towns which are upgraded to cities will not be paupers. Rather, the new urban populations will have assets and family sources of income, unlike urban populations in so many poor countries. These factors point to the good potential for gradual emergence of an urban middle class and active commercial development.

In industry, the investment boom, imports of investment goods, and rapid price rises in industrial materials all point to some significant success by enterprise managers in gaining control of their businesses. Given the determination of national leadership in carrying out the urban reforms and their success in solidifying national leadership positions at the party meetings in September, 1985, continued decentralization of industrial decision-making is virtually certain. In this environment, competition for inputs, capital, and markets should continue to expand horizontal industrial commercial relations, and at the same time prod price changes in directions reflecting scarcity and usefulness.

Although inflation in 1985 is likely to be quite high by historical Chinese standards, 1986 will probably see a slow-down in the rate of increase. The major reasons are the slowdown in industrial growth in general, and the better control over the money supply following this year's bank reforms and the smaller anticipated fall, 1985 harvests. Agricultural procurements are a major vehicle for introducing currency into the economy. Nevertheless, price adjustments will continue for the foreseeable future, but the degree of their success in becoming accurate guides to decentralized decision-makers is still uncertain, a critical question for the overall success of the urban and industrial reform movement.

CHAPTER TEN - Transport

EXECUTIVE SUMMARY

TRENDS	*** Despite growth in recent years, shortage of transport capacity is a bottleneck throughout the economy.** *** Increase in private vehicles is the most dramatic development in transport with 240 percent growth from 1983 to mid-1985.**
POLICY	*** State policy encourages local investment in road and air transport, while state investment continues to favor railways.**
PROBLEMS	*** Low levels of investment and poor use of existing capacity plague the transport network.**
PROSPECTS	*** Growth in highway transport is expected to be three times as fast as rail expansion.**

TRENDS

The 30 percent growth in transport from 1980 to 1984 represents a significant effort in investment and technical improvement. However, it has been inadequate to deal with the shortage of transport capacity, which has become one of the obvious obstacles to more rapid growth. Throughout the transport sector there is congestion and inadequate construction and production. Facilities are not expanding as rapidly as needs are. As a result, transport is a bottleneck for movement of coal from mine to user, for shipping agricultural and light industrial products from rural to urban areas and for the delivery of imports and exports. Production outside the state plan, especially in rural industry, whose production rose 37 percent in 1984, is particularly hard hit since it receives low priority access to state transport facilities. The congestion at ports has resulted in large demurrage charges.

Growth in transport has not kept pace with the overall industrial expansion over the past five years, and it is below what would be expected of a country in China's stage of development. Cargo transport has expanded even more slowly than passenger transport, which is low relative to other developing countries. In spite of growth in recent years, the average mobility of people in China is still very low, 270 passenger-kilometers per capita in 1982 versus 785 in India.

Rail in China has the largest share of freight traffic of any country in the world, although its share was reduced from over 80 percent in 1950 to 50 percent in 1984. Conversely, only the USSR has a lower share of road transport because of the heavy usage of pipelines. Data on the relative importance of the different modes of transport over the past five years are found in Table 10-1.

Both the location of natural resources relative to population and markets, and the state's emphasis on heavy industry play important roles in determining China's transport needs. Heavy industry is more transport intensive than light, which in turn is more intensive than services. Movement of coal and timber accounts for over 40 percent of the ton-kilometers in freight traffic, due to the remote location of these resources. Commercial timber is found solely in the northeast. Similarly, despite deposits in almost every province, the most accessible and highest quality coal is located in the north and northwest, especially in Shanxi, far from the coastal industrial centers. Furthermore, production will probably become increasingly concentrated; coal from Shanxi and Inner Mongolia is expected to account for 60 percent of output by the year 2000.

The most dramatic development within transport is the growing importance of non-state owned vehicles in highway transport. Five years ago vehicles under the state highway department transported 33 percent of the highway freight by volume. In 1984 they accounted for only 21 percent of the total, due to the expanded role of non-state vehicles. Although a similar time series is not available for passenger transport, the establishment of local bus companies and emergence of private vehicles indicate the growing dependence on highways for short distances. Employment in private transport businesses rose more than 40 percent in the first half of 1985 over the end 1984 level. With light industry and agriculture in the rural areas growing faster than the overall economy, demand for highway transportation is outpacing traditional capacity.

The responsibility system in rural areas and the encouragement of private marketing have generated a vastly increased demand for short distance travel. Roads now carry 70 percent of inter-city passengers but still only 31 percent of China's total passenger-kilometers. A survey this spring estimated that the freight volume of these individual and cooperative transporters now accounts for 10 percent of China's total freight volume. Passenger coaches and cargo trucks operated by individuals and cooperatives increased 240 percent from 1983 to mid 1985 to 173,000.

Air transport, which constitutes the smallest segment of China's transport, is growing the most rapidly. After 40 percent growth last year (see Table 10-1 below,) China's Civil Aviation Administration reportedly increased passenger and cargo shipments by 60 percent in the first quarter of 1985. Recent developments include the import of 20 large passenger aircraft this year by CAAC and other equipment purchases by local airports and the agreement with McDonnell Douglass to coproduce additional planes. The establishment of 6 independent regional airlines allowed to compete with the state's CAAC should insure continued strong growth.

POLICY AND REFORM

The major channels for increasing transportation's output level are increased investment from central, regional and individual sources. State policy is designed to promote that end in two dimensions: (1) direct investment in transport and (2), reforms providing indirect incentives through decentralization for investors at lower levels. Under decentralization, provincial and local governments are given more responsibility to invest in public facilities such as roads and airports. At the same time, enterprises and individuals have more incentive to invest in private capacity, particularly private trucks and buses. The state itself promises to invest heavily in transport in the next five years to increase rail capacity out of Shanxi and between major eastern cities, as well as to expand port capacities and develop some superhighways. Central authorities, including Hu Yaobang and Zhao Ziyang, insist that highways and waterways not be ignored while building airports and railways. However, the actual commitment of funds continues to favor railways. In 1984, 60 percent of the state's investment in transport and communications went to railways. While the total investment fund for 1985 is not yet known, investment in railways will reportedly be the highest in recent years at 7.4 billion yuan.

Responsibility for road investment, on the other hand, is being shifted downward. The central authorities stress the need for larger, more efficient vehicles and improved road construction in order to make highway transport more economical than railway, as it is in most developed countries. To date, however,

Table 10-1
CARGO AND PASSENGER TRANSPORT, 1980-1984

(Item)	(Units)	1980	1981	1982	1983	1984
Cargo Transport (Total)						
	......(billion ton-kilometer)	1,203	1,214	1,305	1,404	1,569
	.............(percent growth)	5.6	1.0	7.5	7.6	11.7
Cargo Transport (State)						
	......(billion ton-kilometer)	1,152	1,162	1,240	1,330	1,451
	.............(percent growth)	5.6	.9	6.8	7.2	9.1
by Railway						
	......(billion ton-kilometer)	572	571	612	665	725
	.............(percent growth)	2.1	-.1	7.1	8.6	9.0
by Highway (Total) *						
	......(billion ton-kilometer)	76.4	78.0	94.9	108.4	153.6
	.............(percent growth)	2.6	2.1	21.7	14.2	41.7
by Highway (State)						
	......(billion ton-kilometer)	25.5	25.3	30.3	33.5	35.9
	.............(percent growth)	-4.9	-.8	19.8	10.6	7.2
by Waterway (Total)						
	......(billion ton-kilometer)	505	515	548	579	634
	.............(percent growth)	10.7	1.9	6.4	5.7	9.5
by Ocean Waterway						
	......(billion ton-kilometer)	353	364	377	398	437
	.............(percent growth)	11.2	3.2	3.5	5.5	10.0
by Air						
	......(billion ton-kilometer)	.14	.17	.20	.23	.31
	.............(percent growth)	16.7	21.4	17.6	15.0	34.9
by Pipeline						
	......(billion ton-kilometer)	49	50	50	52	57
	.............(percent growth)	3.2	1.6	.4	4.6	9.2
Cargo Handled at Major Seaports						
	...............(million tons)	N/A	219	238	250	276
	.............(percent growth)	N/A	N/A	8.4	5.0	10.4
Passenger Transport						
	..(billion person-kilometers)	228	250	274	310	362
	.............(percent growth)	15.9	9.6	9.8	12.8	16.9
by Railway						
	..(billion person-kilometers)	138	147	158	178	205
	.............(percent growth)	13.7	6.5	6.9	12.8	15.2
by Highway						
	..(billion person-kilometers)	73	84	96	111	134
	.............(percent growth)	20.9	15.1	14.9	14.7	20.9
by Waterway						
	..(billion person-kilometers)	12.9	13.8	14.5	15.4	15.3
	.............(percent growth)	13.2	7.0	5.1	6.2	-.6
by Air						
	..(billion person-kilometers)	4.0	5.0	6.0	5.9	8.3
	.............(percent growth)	14.3	25.0	20.0	-1.7	40.7

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* Note: The Total transport and total highway transport include freight carried by vehicles not under the highway transport department. 1984 also includes private transport.

SOURCES: Official yearbooks and releases. (J5CBT06b.d5h) the state has only committed itself to superhighways and to providing grain, cloth and cotton to provinces building highways using peasants receiving relief. In 1984, the state decided to put 2 billion yuan worth of these goods into building roads and bridges, materials of which the state has stockpiled considerable surpluses.

Even more than rail and roads, ports and harbor facilities have been unable to match the transport needs associated with China's new economic policies. The rapid growth in foreign trade, especially in the 14 coastal cities opened to foreign investment, is straining port facilities. By late June of 1985, the government reported more than 380 foreign ships nationwide unable to unload their cargo due to limited berths and warehouses. The state has promised to invest heavily in the coastal infrastructure to relieve the congestion. Further, the government advises the cities, trading companies and interior provinces to participate in building docks. It is also suggested that preferential treatment be given to overseas firms willing to invest in China's ports. For the short term, it was announced in July that port authorities have been instructed to fine importers who fail to move their goods on time. Failing that, as a final measure, the government has confiscated the goods of delinquent enterprises.

Table 10-2
CAPACITY GROWTH AND CAPITAL CONSTRUCTION IN TRANSPORTATION, 1980-1984

(Item)	(Units)	1980	1981	1982	1983	1984
Increased Production Capacities:						
New Railroad Lines	............(kilometers)	1,008	3	31	601	1,247
Double Tracks	............(kilometers)					584
Electrified Tracks	............(kilometers)					695
New Highways	............(kilometers)	3,036	1,554	751	1,462	1,443
Port Cargo Handling	..........(million tons)	5.24	2.36	20.00	17.73	7.18
Capital Construction						
Total Chinese Capital Construction, All Sectors	..(billion current yuan)	55.9	44.3	55.6	59.4	73.5
	........(percent growth)	6.8	-20.8	25.4	6.9	23.7
Transport & Telecommunications Sectors	..(billion current yuan)	6.2	4.0	5.7	7.8	10.8
	........(percent growth)	-2.7	-35.1	41.4	36.4	39.0
Transport's share of Capital Construction	...............(percent)	11.1	9.0	10.3	13.1	14.7

Sources: Official Yearbooks and releases. J5CB06a.d5h

PROBLEMS

As discussed above, poor transport facilities pose serious impediments to China's continued rapid economic development. At the same time, a variety of extremely difficult circumstances impedes the development of transport itself. One problem only gradually being overcome is the lack of perception that transport IS a priority investment area in spite of official statements. It universally receives too few resources in developing countries because it is difficult to see or measure their benefits. In China, the situation is compounded by the low esteem in Marxist ideology for service industries which produce no "commodities." Ideology is being played down in China. Nonetheless, 3-4 percent growth is considered acceptable rather than 10-20 percent growth which is the norm in other industrial sectors and may be what is needed in transport. Major investments are needed to increase transport capacity and avoid stifling economic growth. In past years investment in transport has averaged about 1.1 percent of GNP, which is low compared to other countries, Brazil, for example spends 3.3 percent on transport. The scale of future investment could bring it up to double the current rate.

Inefficient use of the existing capacity plagues the transport network. The level of on-site processing for both lumber and coal, which together account for 40 percent of freight traffic, is very low by international standards. It is estimated that raw logs require 35-40 percent more rolling stock than would sawn timber, which leaves considerable room for savings. Likewise, while Japan and western European countries washed or screened over 85 percent of their coal in 1982, China's level was only 18 percent. Thus scarce transport facilities are squandered carrying ash, stones and other impurities to industrial destinations where they are of no use. Another example of poor allocation of transport resources is the excessive reliance on trains to handle inland distribution from seaports. Except for Shanghai and Huangpu harbors, all harbors currently rely primarily on railways to distribute cargo. Railway transport accounts for more than 90 percent in the northern most harbors, 60 percent in Qingdao and 70 percent Tianjin respectively. Railway capacity is saturated, but many auto transport departments in the same areas have surplus transport capacity and lack cargo sources. One facet of relieving the backups at the harbors, therefore, is improving the inland distribution system, shifting toward road vehicles and upgrading access to the port cities.

Shortage of roads and the poor quality of the existing ones are two additional problems for highway transport. Urban traffic, particularly in large and medium sized cities is increasingly congested. Urban road construction cannot keep pace with the increasing number of vehicles. For example, since 1949 roads in Peking have increased 12.5 fold while the number of motor vehicles rose 65 fold and the number of bicycles 31 fold. In recent years the situation has been aggravated by agricultural trade markets and commercial outlets setting up on roadways. However, efforts to alleviate the congestion were unsuccessful when a ban on trucks from outside Peking this spring lead to a severe vegetable shortage in the capital city and the ban had to be lifted.

Similarly, in densely populated areas obtaining the rights of way for land needed for new road construction is difficult. In such a land-poor country, adequate compensation is hard if not impossible to assess. These problems and the lack of state investment have slowed the pace of road construction considerably over the past five years. Moreover, according to the Ministry of Communications most of the 910,000 kilometers of highway throughout the country are of low standard and poor quality.

Administrative problems also hamper the development of highway transport. The decentralization of road construction responsibility is not likely to improve the quality of the roads, since many localities lack the technology that the central authorities can employ. Overlapping organizations and multiple layers contribute to inefficient planning. Also, funds collected as road maintenance fees are used for other purposes.

The vehicles themselves present their own problems. Present truck production would just cover renewals of the fleet in the basis of a ten year life cycle. Since traffic is increasing, vehicles are kept longer, but still the domestic supply cannot provide enough vehicles. The scarcity has lead to a rapid increase in vehicle imports. In the first half of 1985, imports of cars increased 725 percent and trucks rose 536 percent over the same period in 1984. The lack of horizontal contact between infrastructure agencies and with vehicle manufacturers exacerbates the problems of roads and vehicles. For example, it is recognized that larger trucks would be more efficient than the current four to five ton capacity models, but the roads and bridges are too poor to handle them. The production of rolling stock and locomotives faces the same dilemma. In recent production has only been able to meet half the combined need for replacements and new additions. To supply short-term needs, imports may have to be considered for both rolling stock and locomotives until local production capacity can be increased.

PROSPECTS

Prospects in transport are for significant but not explosive growth by 1990 with total freight ton kilometer growing an average of 8-9 percent. With increasing per capita income, passenger transport will grow even faster than freight at an estimated 10 percent per year. The Ministry of Communications anticipates that by the year 1990 highway and waterway freight volume will be 1.82 billion tons, up from 836 million tons in 1984, which implies an average growth rate of close to 14 percent. Transportation volume by rail for both passenger and cargo is expected to grow at only 4 or 5 percent per year over the next 15 years. Despite some potential rationalizations, freight needs are expected to grow as fast as output in agriculture and industry. Hence, even if highway freight increases at a more modest 12 percent, by the year 2000 the share of road transport could increase to 20 percent of domestic ton kilometers, from around 10 percent in 1984. In terms of traffic, the official Seventh Five Year plan calls for 15 percent annual growth for highways, and only 5.4 percent annual traffic growth overall. In sum, the transport system is expected to become slightly less concentrated in rail during the next 15 years.

In light of stated highway traffic goals, existing roads are clearly insufficient and transport officials have announced an ambitious program of new road and highway construction. This includes plans to build 11 major motorways in the next five to six years in Shanghai, Nanjing, Shenyang, Dalian, Hangzhou, Ningbo, Qingdao, Lianyungang, Tianjin, Peking, Guangzhou, and Zhuhai. Completion will bring the total length of motorways and 24-meter-wide first-class roads to 2000 kilometers from almost none five years ago. In another project, a high-grade expressway will be built from Shenyang to Dalian, to be completed by 1990 with investment to total 2.02 billion yuan, 300 million annually starting in 1985. Officials estimate that this will decrease transport costs between these cities by 40 percent.

Success in increasing the share of road vehicle transport will require making adequate fuel supplies available. Supplies of liquid fuel are already very tight and in some cases shortages are constraining the use of vehicles. Even with improvements in fuel efficiency, consumption in the year 2000 could be 3-5 times higher than in 1980, or 30-50 million tons. Thus far the state has given priority to liquid fuel as a foreign exchange earner, emphasizing domestic substitution of coal for oil, which is of course no help for road transport.

Freight rail transport expansion is expected to be concentrated on double tracking, electrifying tracks, and on new railroads out of Shanxi to alleviate the delays in coal transport. A new railway trunkline is already under construction from Datong in Shanxi to Qinhuangdao with modern technical equipment, primarily for coal transport and heavy-load train operation. The western section, 357 kilometers of double-track electrified railway, should start transporting coal in early 1987. The rest will initially be single-track and should be completed in 1991.

Extensive development of China's waterways is planned for the next five years. Harbor traffic volume is planned to be up 61 percent in 1990 from 1985, under the seventh five year plan. 120 deepwater berths and 36 medium and small berths will be built, bringing the total number of coastal harbor berths to 542 from the current total of roughly 390. Construction of port facilities will be focused on transport of energy related materials and foreign trade commodities, including expanding capacity for coal produced in the north to the south and building berths for containerized liners. The container transport capacity should increase from 850 thousand to 1.3 million standard containers by 1990.

Inland waterway development will focus on the network of waterways linking the Yangtse River, Pearl River, Heilong Jiang, Grand Canal and the Huai He. Plans call for the removal of 180 locks and the improvement of 10,000 kilometers of channels to make 7,000 kilometers navigable for barges over 1,000 tons.

CHAPTER ELEVEN - Population

EXECUTIVE SUMMARY

TRENDS	* Migration and definitional changes are speeding urbanization.
	* Continuing state control over family structure is evidenced by the reduction in China's natural rate of population increase.
POLICY	* The state is implementing a national ID card system as a population control measure.
	* Self-employment is encouraged as a method of reducing urban unemployment and under-employment.
PROBLEMS	* An even stricter political system will be needed to discipline China's large population in the face of rapid change.
	* The labor force is aging rapidly and a comprehensive retirement system will be needed to support the growing number of elderly.
PROSPECTS	* The demand for more family members as individual prosperity is encouraged will make slowing population growth difficult.
	* The urban population could be 70 percent of the total by the year 2000.

TRENDS

China's population growth rate, down to 10.81 per 1000 in 1984, is lower than that of most other Third World countries, but it must drop even further if economic gains are to have their planned significance. A rate of 10 per 1000 must be achieved if the government is to hold the population to 1.2 billion by year 2000. A national ID card plan, aimed at preventing migration and controlling accelerating urbanization, is already being implemented in China's largest cities. The one-child policy, which will help China achieve its target population of 1.2 billion in the year 2000, will also accelerate the rise in the average age of the population. This will compel the State to devise a costly retirement system and an expanded health care program to support the growing number of elderly people.

China's population at the end of 1984, based on a sample survey conducted that year, stood at 1.036 billion people, or 22 percent of total world population. China's estimated 1984 population of 1.036 billion indicates a population growth rate in 1984 of 10.81 per 1000, slightly higher than the goal of 10 per 1000 announced at the implementation of the one-child policy in 1979. China's average annual population growth rate for the ten years from 1973 to 1983 was 15 per 1000; therfore, the 1984 population growth rate of 10.81 per 1000 indicates substantial progress in reducing population growth in the last few years. And when compared to population growth rates of other Third World nations listed in the table below, China's 1984 population growth rate of 10.81 per 1000 is much lower than Kenya's growth rate of 40 per 1000 and India's growth rate of 23 per 1000. It is only slightly higher than the population growth rates of industrialized nations such as the United States at 10 per 1000 and the Soviet Union at 9 per 1000.

Table 11-1
WORLD POPULATION COMPARISON

Country	Population 1983 (millions)	Average Annual Population Growth Rate 1973-1983 (per 1000)	Fertility Rate 1983	Life Expectancy at Birth 1983	Urban Population Share 1983 (percent)
China	1019	15	2.3	67	21
India	733	23	4.8	55	24
Brazil	130	23	3.8	64	71
Korea (South)	40	16	2.7	67	62
Indonesia	156	23	4.3	54	24
Kenya	19	40	8.0	57	17
Japan	119	9	1.7	77	76
United States	234	10	1.8	75	74
France	55	4	1.8	75	80
USSR	273	9	2.4	69	65

Source: "World Development Report", The World Bank, July 1985, pp. 174-217.

Even though China's population growth rate has been falling since 1981, it must reach the 10 per 1000 figure and remain there every year until 2000 if the goal of holding the population to 1.2 billion in that year is to be achieved. China's fertility rate, already low at 2.3 children per woman when compared to India's 4.8 and Brazil's 3.8, must drop below the replacement level of 2.1 children if population growth is to continue to decline from now until the year 2000.

The present rural/urban population growth rate differential makes holding the overall growth rate to 10 per 1000 much more difficult. Since 1976, the urban growth rate has ranged from 6.5 to 13 per 1000 while the rural growth rate has ranged from 12 to 15 per 1000. In 1983, urban growth was 10.07 per 1000, but rural growth was 12.2 per 1000. Because the rural population of China in 1983 accounted for 76.5 percent of the total, the relatively high rural growth rate is a hindrance to the achievement of an overall growth rate of 10 per 1000. Continuing urbanization, planned and unplanned, is one factor that will contribute to reduction of the overall growth rate, but only the reduction of the higher growth rate of the large rural population will slow population growth significantly.

More significant than China's overall population growth rate is the remarkable surge in urban population which began in 1979 and accelerated markedly in 1983-84. The urbanization that normally accompanies industrial development was long delayed by Maoist policies, but has now resumed due to recent economic and social reforms. The rapid growth of the urban population during the last few years is much less the result of the heavy rural-urban migration so common in other poor countries than it is the result of administrative changes: redefinition of rural counties as towns and the enlargement of traditional urban boundaries to include the surrounding populations. There has been some degree of actual migration, as evidenced by scattered reports of rural workers in urban industry, but reliable data are not yet available.

Table 11-2
RURAL-URBAN MIGRATION, 1971-1984

	Population Growth			Apparent In-Migration		
	Total	Urban	Rural	Urban	Rural	Statistical Discrepancy
(Percent)				(Millions)		
1971	2.70	1.99	2.84	.57	2.84	3.01
1972	2.29	1.52	2.44	.18	.84	.59
1973	2.33	2.75	2.25	2.25	.33	2.13
1974	1.85	1.63	1.89	1.08	.24	.89
1975	1.72	2.79	1.50	2.90	-1.22	1.35
1976	1.40	1.94	1.29	2.06	-.45	1.27
1977	1.34	2.01	1.20	1.99	-.49	1.27
1978	1.35	3.46	.91	4.35	-2.69	1.45
1979	1.33	7.25	.04	11.02	-9.18	1.65
1980	1.19	3.66	.66	4.84	-4.58	.05
1981	1.38	5.22	.42	8.15	-8.59	-.69
1982	1.47	4.87	.61	7.22	-7.10	.19
1983	.94	14.05	-2.51	27.59	-29.99	-2.18
1984	.96	36.81	-10.08	na	na	na
(Millions)						
1984	1,034.75	330.06	704.69			

*NOTE: Apparent migration is calculated from birth and death rates. The statistical discrepancy between urban in-migration and rural out-migration estimates is due to inconsistencies in the official data themselves.
SOURCES: Official State Statistical Bureau data. (J5AD19/B.DOC, J5AD19/A.DOC, J5AD41.T5J)

The statistics in Table 11-2 give a dramatic illustration of the extraordinary shifts in favor of urban living. The number of people in cities and towns has grown much more rapidly than would have been the case without migration and the creation of new urban areas. In 1983 and 1984 the population living outside cities and towns actually declined. Official data on births and deaths permit the calculation of apparent migration flows, and the shift in 1983, the last year for which migration data are available, affected nearly 30 million people. Without further information, it is difficult to know the share of these shifts resulting from population movements and the share due to extension of urban boundaries. However, the State Statistical Bureau reported that the sharp increase in urban population was due primarily to the "many newly-established towns resulting from readjustment in the criteria for determining urban towns." Whatever the urban/rural population mix is at this point, the status of China's population is clearly in a state of rapid flux.

Rising urban population figures since 1981 are the result of definitional and developmental changes: an increase in the number of small and medium sized cities brought about by the state's encouragement of development outside the already overcrowded areas, and a broader, more realistic definition of "urban areas" used for the first time during the 1982 national census. The State Council now approves redefinitions of numerous rural towns and counties as cities as they become more urbanized. In addition, rural-urban migration continues, though officially prohibited, as discontented youths return from the countryside where they were sent during the Cultural Revolution. In April, hundreds staged a demonstration in Peking, demanding that they be allowed to return from the countryside to live in Peking permanently. The group said it represented 20,000 such people still living in Shanxi province. Despite the possibility of hundreds of thousands of "sent-down" persons flooding the cities if the resettlement policy were to be relaxed, Peking city authorities in this instance conceded by allowing certain categories of youths to apply for jobs in the city.

As a result of the reforms, China is now following the development pattern of the national economies known as "early industrializers." The historical experience of such economies showed a progression from an economy dominated by agricultural employment to one dominated by manufacturing employment. In China, the growth of rural village industry, 48 percent in 1984, shows that the transition of labor from the agricultural sector to the manufacturing sector is already underway. And as rural residents establish transportation, commercial, and repair services, labor will also shift out of agriculture and into the service sector.

The notable increase in the number of self-employed persons is indicative of China's very special transformation from a centrally planned command economy to a decentralized economy depending on individual incentives and profit motivation. In 1984, there were almost 3 million self-employed workers in cities and towns, roughly 30 percent more than there were in 1983. The number of self-employed workers will continue to rise as the state allows more private enterprise and exhorts the people to "get rich".

Regional differences in sectoral employment are expected to become more pronounced as certain areas develop faster than others. Currently, a lower percentage of the workforce is employed in agriculture in the coastal and industrial regions than is employed in agriculture in the less-developed interior. Even though there have been reports in the Chinese press stating that development priority should be given to the western provinces, especially Xinjiang, development efforts there have been largely political. And the recent decision to de-emphasize development in all but the four largest of the fourteen coastal cities shows that it is the traditionally most successful coastal regions that have been targeted for foreign investment, technical progress, and rapid development.

POLICY

China has implemented policies to control population growth, restrict migration to the cities, create jobs for all who are employable, and avoid unemployment in the politically sensitive urban areas. As the Maoist system of ration coupons and state employment dissolves, the recently-announced national ID card plan will allow China to maintain and strengthen its control of the population's movements and activities.

China'a ambitious population control plan, under which every couple would be allowed to have only one child, was announced in 1979. The one-child policy was intended to be a temporary restriction on family size, allowing the state to slow population growth which, if unchecked, would threaten to negate planned economic gains. The intent of the one-child policy has not changed, but such a strict policy contradicts a fundamental long-run goal: a population in future decades that has a balanced age structure and a stable labor force composition. Over-zealous population control now will cause a shortage of young workers in the future.

To cap population at 1.2 billion by the year 2000, Chinese demographers, some of whom suggest an "ultimate" Chinese population of 700 million, realized that it would be necessary to hold the annual population growth rate to 10 per 1000 for the last 20 years of this century. This would require holding the fertility level below the replacement level of 2.1 children per woman for many of those years. The one-child policy was designed to reduce fertility quickly and dramatically so that overall population growth could be centrally controlled. Even though overall population growth has slowed, China's fertility rate was still above replacement level in both 1982 and 1983 at 2.3 children per woman.

The one-child policy could enable China to reach its population goal of 1.2 billion people in the year 2000; however, even the low growth rate of 10 per 1000 required to meet that goal is still considered too high by some Chinese demographers. Those who have pegged the ultimate Chinese population at 700 million are, in effect, advocating a negative growth rate for many years. The result of such a policy would be an even more dramatic and undesirable impact on China's age distribution than the one-child policy or the current low growth rate are going to produce.

A serious policy conflict has arisen as the unintended effects of the one-child policy and the agricultural reforms have come to light. Peasants, whose birth rate was already much higher than that of urbanites when the one-child policy was announced in 1979, were given "private plots" and the freedom to sell their surplus produce in free markets when the agricultural refoms were implemented. They immediately realized that they could enrich their families faster if there were more family members to work the land. So they ignored the one-child policy or found ways to subvert it. There were even reports of rural cadres, who were and still are in charge of enforcing the one-child policy, having larger families to help farm their own private plots. Due to conflicting incentives then, rural residents have resisted the implementation of the one-child policy as their standard of living has continued to rise. Such a situation has created the potential for explosive population growth because both the rural birth rate and rural population are much higher than the urban birth rate and population. The government has addressed this problem by stepping up urbanization, either by definitional or boundary changes, by tacitly allowing "sent-down" persons to return to the city (and in some cases creating jobs for them), and by adjusting the marriage ages.

There have been unconfirmed reports that the government has relaxed the one-child policy in rural areas in an attempt to accomodate the vast Chinese rural population that, now more than ever, wants larger families. As an example, it has been reported that rural families whose first child is female may be allowed to have a second child in some cases. It is not known, however, how widespread such relaxation practices have become.

In an effort to control migration to existing urban centers, the State has devised a national identification card system that met with success in a pilot project in Peking last winter. It is now being implemented in the larger cities. One of the stated goals of the national ID card program is to ensure "the management of population with modern technology." Currently, each household has a "record of domicile" registration which can only be used locally to prove residency. The national ID card will allow the central government to restrict illegal migration of rural families and individuals to urban areas by recording each person's residence on a nationally recognized card.

For the past 20 years, China's population has been urbanizing despite statistics that have indicated only very slow growth of the urban population. This under-reporting of the urban population was mainly due to unrealistic definitions of "urban areas" which failed to include densely populated regions just outside city boundaries as part of metropolitan areas. By the early 1980's, though, suburban and rural areas that had become increasingly urbanized, especially rural districts close to cities and towns, were redefined as urban areas themselves. The redefinitions caused urban populations figures to be revised upward as far back as 1965. A different type of redefinition is now occurring throughout China's countryside. During the past few years, the State Council has been approving the consolidation of many rural counties and towns into cities. The effect of this policy has been to increase the urban population on paper and to bring the reported urban population figure closer to the true urban population, which is increasing even more rapidly as a result of the economic reforms.

PROBLEMS

Controlling the growth of a population already in excess of 1 billion people creates a host of problems, not the least of which is the possibility that such a huge population cannot be controlled. Chinese officials have already shown that they are determined to slow population growth, and they have produced remarkable results. Yet, the maintenance of a strict political system that will be required to discipline such a large population in the face of rapid economic and social change, the population's changing age structure, the composition of the labor force, and the prospect of a society with a great number of only children are all problems that Chinese planners will have to face in the next few decades. Chinese planners and statisticians, as they become more sophisticated in their knowledge and management methods, will have to exert increasingly greater control over an expanding population and labor force if China is to modernize in their lifetimes.

In order to slow population growth, the state will have to exercise even more pervasive control in the coming years. New methods of control will have to be devised to counter the efforts of those couples who desperately want more than one child, and who have found loopholes in the one-child policy. For example, there have been reports of workers gaining temporary employment outside their registered residence and giving birth to additional children while away from home.

Strict population control policies can have adverse political effects at home and abroad. Chinese who sympathize with the family planning policy, including many young urban couples, worry that Communist Party hard-liners who oppose Deng may someday accuse him of sacrificing future generations to his "bourgeois" economic goals. If it is found that China's population control policies are too strict or include forced sterilizations or abortions, there could be a loss of international prestige. A side-effect of the one-child policy carried to excess could be a resurgence of female infanticide.

Even if the one-child policy were to be relaxed soon, the rising average age of the population will lead to serious problems in the areas of health care, retirement benefits, and labor force composition throughout the next several decades. There is already concern that the proportion of elderly dependents in the population will temporarily bulge above its ultimate long-term level. Chinese demographers say that the one-child policy could cause that proportion to reach one third of the total population within 50 years. Yet, there is official encouragement for self-reliance in family care for the elderly, in direct conflict with the one-child policy now in effect. The government has assured parents of only children that there will be a retirement system in place by the time they need it, but it is difficult to see how China could fund a retirement system given the present unfavorable demographic situation. Many Chinese already fear that the typical family of the future will consist of a single child, two working-age parents, and four grandparents, all supported by the two family workers.

The one child-policy threatens to alter dramatically the structure and productivity of the nation's labor force well into the next century if it is enforced much longer. The long-term effect of such a policy could be a shrinking labor force that would, in turn, imperil the modernization program. Prolonged very low fertility could cause a rise in the average age of the labor force and create shortages of younger, better and more recently trained, more adaptable workers. Then, not only would the labor force become older and less adaptable to change, but the vast number of new retirees would also have to be supported by fewer, yet supposedly more productive, young workers. One has to question whether such a situation is possible given China's current education and training system. In late July, it was reported that only primary schooling was universal in Peking but that by 1990 all of the city's youngsters should receive a senior middle school education. One result of such an inadequate education system is an illiteracy rate in 1982 of 32 percent of the population over 12 years of age.

Agricultural reforms have spawned a rural class structure that is developing rapidly. There are now "specialized" households in the countryside with access to better land, equipment, and economic opportunities. This situation, coupled with limits on migration, causes illegal movement to nearby cities and towns where peasants have become a subclass of contract workers without the privileges enjoyed by urbanites. When food prices were hiked in Tianjin recently, non-urban contract workers rioted because they did not receive the bonuses that urban residents were given to offset the price rises.

Peasants have found it possible to live in the city as a result of new economic freedoms and improvements in transportation. Now that there are free markets in the cities, one does not need food coupons to buy food there. Now that enterprises can hire contract labor, one does not need an official position to earn money in the cities. (In an attempt to prevent urban enterprises from luring chearer labor from the rural areas, however, the state has indicated that urban enterprises hire only urban residents on a contract basis.) So in order for the state to prohibit migration and limit the growth of existing urban centers, it will have to carefully monitor housing or enforce draconian check systems like the "pass" in South Africa. As a result, urbanization will probably have to be more rapid than Chinese planners foresee.

PROSPECTS

China's total population is likely to exceed the target of 1.2 billion in the year 2000, given relatively high rural population growth and the unlikelihood that the overall population growth rate of 10 per 1000 can be reached immediately and maintained for the next 15 years. Although rural population growth fell from 15 per 1000 in 1981 to 12.2 per 1000 in 1983, further reduction may be difficult to achieve in the face of reforms that unintentionally create the demand for more family members in the countryside. One must bear in mind, however, that the government has made great progress in controlling population growth since population control became government policy after Mao's death in 1976.

As a result of reforms already underway, the urban population could reach 70 percent of the total population by the year 2000, up from 31.9 percent in 1984. And in spite of policies which prohibit migration, Chinese officials expect that more than one third of the urban population in the year 2000 will have migrated from the countryside. Relaxation of urban employment and marketing practices will be responsible for some of the migration. In addition, some of the growth of the urban population will be due to the redefinition of dense rural areas and the creation of smaller cities and towns in the countryside where excess rural labor will find non-agricultural employment.

As the one-child policy is continued and smaller families are advocated, it can be expected that the proportion of elderly will eventually rise to 20 percent of the total population from today's 5 percent. Before that takes place, however, the state will have to establish some sort of social security system to allay the fears of parents of only children. The state health care system will have to be upgraded and expanded to handle to large number of older persons which, at 20 percent of the total population, could reach 240 million by the year 2000.

Social attitudes will change even more rapidly as the population grows and the economy modernizes. The traditional idea of submission to authority may already be changing in some one-child families as only children are given the best the family and the state have to offer. China's political system may have to yield to the demands of a population and workforce accustomed to the largest degree of individual freedom allowed in China since the founding of the People's Republic in 1949. Only children could become the type of people the population least adapted to life under a political system that demands conformity, ideological purity, and self-sacrifice for collective welfare.

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